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THE MARGINAL UTILITY THEORY IN THE UNITED STATES OF AMERICA

DOOR E. C. F. J. SCHRÖDER

1947

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Falkenberg.

Freiheitliche Beamtenpolitik.

Albert.

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Leipzig

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The Journal of Political
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**THE MARGINAL UTILITY THEORY
IN THE
UNITED STATES OF AMERICA**

Niet in den handel

Promotor : Prof. Dr M. J. H. Cobbenhagen

THE MARGINAL UTILITY THEORY IN THE UNITED STATES OF AMERICA

(DE GRENSNUTLEER IN DE VEREENIGDE STATEN)

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PROEFSCHRIFT TER VERKRIJGING VAN DEN
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Aan de Nagedachtenis
van Vader en Moeder

KORTE INHOUD

INLEIDING (blz. 1-3)

Het begin van deze eeuw vertoont een grote eenstemmigheid in de theoretische economie in de Verenigde Staten. Er zijn echter twee afwijkingen: Veblen, die de abstracte methode aanvalt, en de grondslag legt voor het Institutionalisme, en Davenport, die felle critiek levert op de logische bouw van de subjectieve leer. Het Institutionalisme is te vergelijken met de Duitse Historische School, maar werkt met meer moderne ideeën. Het leidt ons direct tot de vraag, die deze studie beantwoorden wil: „Wat is er nog overgebleven van de oude grensnutleer in de Verenigde Staten? Als zij nog bestaat, in welke vorm wordt zij dan gesteld?” De studie is echter niet bedoeld als een beschrijving van de bestaande richtingen, doch het plan heeft voorgezet, en wordt bewust nagestreefd, een afgerond doctrinair geheel te vormen. Zodoende worden de verschillende opinies kritisch onderzocht en geclassificeerd naargelang zij al of niet in zulk een eenheid kunnen worden opgenomen.

HOOFDSTUK I

DEFINITIE VAN NUT (blz. 5-14)

Voor het doel van deze studie kan men twee soorten begrippen onderscheiden: experimentele en geconstrueerde. Nut behoort tot de eerste soort, en wordt in het algemeen toegekend aan dingen, die bruikbaar zijn, en iets bijdragen tot de verwezenlijking van een doel. De waarde van een goed berust schijnbaar op het nut ervan. En dit leidt tot de bekende paradox van de lage prijs van uitermate nuttige dingen. Met een simpel beroep op het schaarstebegrip kan de wetenschap niet volstaan; een diepere analyse is nodig, die dan aanleiding geeft tot het construeren van begrippen op min of meer willekeurige wijze.

De structuur van zulke begrippen hangt altijd af van het doel waarvoor zij gebruikt moeten worden. Eenmaal gedefiniëerd moeten zij consequent worden doorgevoerd, en juist dit laat vaak veel te wensen over. Ook ligt hier de reden waarom soms verschillende

schrijvers verschillende begrippen construeren, en onder gelijke termen toch andere dingen verstaan. Het is van groot belang dat er eenheid wordt gebracht in het gebruik van deze begrippen, en, in verband daarmee, ook in de terminologie.

De meeste Amerikaanse auteurs noemen nut een hoedanigheid of een kracht. In hun definitie veronderstellen zij enkel het bestaan van een behoefte, en sluiten elk normatief element geheel uit. Nut is dan iets objectiefs. Maar in de toepassing komt altijd een subjectief element sterk naar voren, dat niet in deze definitie is begrepen. Dit heeft geleid tot pogingen nut op subjectieve wijze te definiëren, of ook wel om twee nutsbegrippen in te voeren, het objectieve en het subjectieve. Niets schijnt echter een betere oplossing te bieden, dan het aanvaarden van nut als een relatie. De nutsrelatie berust enerzijds op de eigenschappen van het goed en anderzijds op de behoeften van de persoon.

HOOFDSTUK II

AFNEMEND NUT (blz. 15-23)

Uit het nutsbegrip wordt dat van het grensnut afgeleid door middel van het beginsel der afnemende nuttigheid, vaak beschouwd als de grote bijdrage der subjectieve waardeleer tot de economische theorie. Volgens dit principe neemt de intensiteit der behoefte af naarmate zij wordt voldaan. Soms wordt dit als een axioma aanvaard; soms met een beroep op de persoonlijke ervaring „bewezen”. Een wetenschappelijk bewijs is moeilijk te vinden. Een parallel met psychologische wetten van gelijke strekking is niet voldoende. Toch kan men niet ontkennen, dat er zo iets als afnemend nut aan het werk is.

Viner tracht het principe af te leiden uit de dalende vraagkromme, doch komt niet verder dan een hypothetische conclusie, daar beperktheid van koopkracht ook een verklaring van die daling geeft. In sommige omstandigheden is het echter mogelijk de invloed van de beperking in koopkracht uit te schakelen, en zo aan Viner's bewijs grotere kracht te geven.

De opwerping van Knight, dat men niet een enkel goed moet beschouwen, maar meerdere waaruit gekozen wordt, en derhalve nut moet definiëren in termen van de behoefte aan andere goederen, heeft waarde wanneer men komt tot het meten van nut, maar doet niets af aan het recht dat elkeen heeft om de relatie tussen een goed

en de behoefte eraan te ontleden, zonder onmiddellijk alle complicaties in aanmerking te nemen.

In het algemeen zijn de auteurs voldaan met het oude „introspectieve” bewijs, en aanvaarden zij het principe. Zij die nut als iets geheel objectiefs hebben gedefiniëerd (een hoedanigheid), beschrijven afnemend nut in even subjectieve termen, als de aanhangers van subjectief nut, en wijken zodoende van hun eigen definitie af.

Het is niet aan te bevelen afnemend nut in monetaire termen te kleden, daar dit (zonder meer) het kostenelement naar voren brengt, terwijl het principe juist wil zeggen, dat nut afneemt bij toenemende bevrediging ongeacht de kosten.

HOOFDSTUK III

HEDONISME (blz. 25-33)

De ethisch-psychologische genotsleer van Bentham is historisch met de nutstheorie verbonden. Veblen's aanvallen richten zich voornamelijk op dit aspect, en hebben er toe geleid een „nutsphobie” te weeg te brengen. Maar Veblen stelde niets positiefs in de plaats van de oude theorie, zodat deze niet in onbruik raakte. Langzamerhand heeft zich later in de theorie zelf een inwendige vernieuwing voltrokken, die de psychologisch onhoudbare stellingen losmaakte van wat nog gezond scheen, en ze uit het systeem verwijderde. Marshall was daar al mee begonnen, en Fisher volgde hem, maar het was meer in woord dan in daad. Pogingen om nieuwere psychologische ideeën in de plaats van de oudere te stellen, faalden, daar men zich niet aan een psychologisch systeem wilde binden, waar men als econoom geen invloed op kon uitoefenen, en dat steeds verandering zou eisen met het opkomen van elke verandering in de psychologie.

Alleen Davenport zag aanvankelijk dat het nutsbegrip als zodanig niet noodzakelijk een hedonistische inhoud had, en niet met lust of onlust stond of viel. Zijn idee van nut als relatie hielp hem daarbij. Later, toen men algemeen het gebruik van woorden, als „pleasure”, „gratification”, „satisfaction”, e.d. begon te vermijden, ontstond ook bij anderen een bredere kijk op het behoeftensysteem, met een veelheid van motivering tot economisch handelen, in plaats van de enkele drijfveer van lust of onlust.

Het moderne nutsbegrip is dan ook geheel vrij van hedonisme, niet minder dan het substitutie-begrip, dat de laatste tijd meer naar voren is gekomen. Nog kan men soms het oude hedonisme ont-

moeten, maar niet meer bij de vooraanstaande schrijvers.

Een gevolg is, dat men het als onverschillig beschouwt, althans voor de waardeleer, op welke wijze de economische motivering plaats vindt. Een behoefte is economisch als zij de vraag naar goederen veroorzaakt of beïnvloedt. De nutsleer is dan niet meer gebaseerd op motivering, maar wordt afgeleid uit de experimentele gegevens van het economisch leven: de vraag, en het feit der individuele waardering.

HOOFDSTUK IV

GRENSNUT (blz. 35-47)

Waarderen is vergelijken. Waarde is een vergelijking tussen twee nuttigheden. Welk punt op de dalende nutskromme moet men voor deze vergelijking gebruiken? Het punt dat aangeeft het grensnut.

Dit punt wordt gevonden door de daling in het nut te stoppen, en dit gebeurt door de hoeveelheid van het goed te beperken. Het begrip der schaarste doet hier zijn intrede.

Bij de Oostenrijkers geschiedde dit door de noodzaak van een keuze te postuleren, en daaruit het kostenbegrip af te leiden, als opgeofferd nut. Sommigen werden hierdoor verleid tot de opinie dat op deze wijze schaarste zelf tot nut werd teruggebracht, doch dat is onhoudbaar, omdat het postulaat der keuze zelf schaarste impliciet bevat. Marshall gaf er daarom de voorkeur aan de kosten expliciet een eigen functie toe te kennen, en de Amerikanen hebben hem hierin bijna zonder uitzondering gevolgd. „Disutility” kreeg als term echter de voorkeur boven kosten, om aan te geven, dat het begrip precies het tegengestelde is van nut, en even individueel: het is de afkeer van het offer dat gebracht moet worden; de complicaties van monetaire kosten maken dus nog geen deel uit van de redenering, daar deze kosten prijzen zijn, en derhalve zelf door de theorie moeten worden verklaard. Een ander voordeel van „disutility” is, dat het nog steeds duidelijk blijft, dat we op dit punt met één goed te doen hebben, en tot een grensnutidee geraken dat niet vervaagd is voor het goed is gedefinieerd. Analooq met het principe van het afnemend nut kan men dat van het toenemend offer opstellen, en waar deze beide elkaar ontmoeten vindt men dan het grensnut dat tevens grensoffer is: op het snijpunt van de nutskromme met die van het offer.

Vele schrijvers spreken van „afnemend grensnut” zonder onderscheid te maken tussen een beperking van de hoeveelheid van het goed door een imaginaire voorraad en die welke ontstaat door het

vereiste offer. Uit de kontekst moest men dan afleiden welk punt precies wordt bedoeld, wanneer over grensnut gesproken wordt. Sommigen voeren de term „subjective worth” in, om aan te duiden dát grensnut dat gelijk is aan het grensoffer. De terminologische verwarring is zeer groot.

Deze verwarring heeft vaak tot misverstand geleid, onder meer tot de opvatting dat WAARDE ontstaat op het snijpunt van de nuts- en offerkromme. „Subjective worth” werd dan opgevat als identiek met „subjective value”. — Ook volgt er veel onduidelijkheid in de uiteenzetting van de gehele waardeleer uit, b.v. bij Seligman. De indruk wordt gewekt alsof deze leer uitermate gecompliceerd is, en gespeend van alle realiteitswaarde; ook de vooruitgang van het analytisch onderzoek werd erdoor belemmerd.

De nutsleer moet verklaren, waarom eenheden van een goed, die verschillen in nut, toch gelijkelijk gewaardeerd worden. Daarvoor is de grensnutidee nodig. De eerste stap is dan een bepaalde voorraad aan te nemen, louter door die te veronderstellen in de verbeelding; de tweede stap laat die veronderstelling vallen, en doet de beperking optreden als een gevolg van het kosten- of offerbegrip. Zuiver analytisch kan men dan afleiden, dat de waardering der afzonderlijke eenheden zich moet baseren op het nut van de grenseenheid; in elk ander geval ontstaat een logische tegenspraak.

HOOFDSTUK V

HET METEN VAN NUT (blz 49-60)

Pogingen van Fisher en van de economische richting om nut te meten hebben gefaald, omdat zij niet alle elementen van de ruilwaarde kunnen uitsluiten, en dus niet het pure nut meten. Nut in zijn zuivere vorm heeft een subjectieve inslag, doordat de behoefte optreedt als een bepalende factor. De psychologie schijnt ons ook niet te kunnen helpen: nog steeds heeft zij geen aanvaardbare eenheid van bevrediging per pond koffie ontworpen. Enig resultaat werd verkregen met physiologische reacties, maar deze berusten geheel op sensitieve gegevens, en laten de relatie met de wil van de mens buiten beschouwing, onder wiens invloed het behoeftensysteem toch staat. Voorlopig moeten wij tevreden zijn met het begrip nut, zonder het te kunnen meten. Ook zo kan het goede diensten bewijzen.

De indirecte methode om nut in geld te meten vindt enkele aanhangers. Vooral als dit gebeurt met behulp van het begrip van het

grensnut van geld, lijkt dit zeer aantrekkelijk, daar aldus het ene nut in het andere quantitatief wordt uitgedrukt. Maar vooreerst krijgt men aldus geen echte, universele, nutseenheid, daar het grensnut van geld voor iedere persoon verschillend is. En vervolgens geraakt men verstrikt in een cirkelredenering, daar de relatie tussen geld en nut eerst door de waardeleer zelf moet gelegd worden, en men die niet zo maar mag veronderstellen. In de term „grensnut van geld” heeft nut dus niet dezelfde zuivere betekenis, die het heeft in betrekking tot andere goederen : geld conoteert altijd het ruilelement. Daarom is het aan te bevelen die uitdrukking geheel te doen vervallen. Taussig's „marginal vendibility” kan hier wellicht goede diensten bewijzen, en verwarring voorkomen.

HOOFDSTUK VI

SUBJECTIEVE WAARDE (blz. 61-69)

Indien de waardeleer enkel een fantastisch begrippenspel was, zou men heel gewoon de meetbaarheid van het nut kunnen postuleren. Wil men er echter realiteitswaarde aan toekennen, dan is zulk een werkwijze niet mogelijk. Veronderstelt men echter voor een ogenblik de meetbaarheid en voert men een fictieve nutseenheid in, dan blijkt terstond, dat het meten van het absolute nut niet nodig is.

In de ruil zijn nl. nutsverhoudingen van beslissende invloed. Het gebrek aan een maatstaf maakt de beschouwingen iets meer ingewikkeld, maar niet minder exact. De vergelijking van het grensnut van twee goederen door één persoon brengt ons tot de verhoudings-idee, die in de ruil een rol speelt. Deze verhouding heet : subjectieve waarde. Het is geen nut meer, maar een verhouding van nuttigheden. Bovenal is het dus iets relatiefs, iets wat vaak over het hoofd wordt gezien. Waarde is dus noch een maatstaf van nut, noch de objectieve uitdrukking ervan, doch het resultaat van twee nuttigheden, zonder echter ook maar iets te zeggen over de absolute grootheid der nuttigheden. De grensnutleer vervlakt derhalve niet het verschil tussen gebruikswaarde en ruilwaarde, maar stelt het integendeel zeer scherp : zij vormen twee geheel verschillende categorieën.

In de enkelvoudige huishouding zou men de „waarde” van een goed af kunnen leiden, direct, uit het grensnut. Maar dit is onmogelijk zodra het ruilverkeer wordt ingeschakeld : het relatieve element komt dan terstond naar voren.

De nutsverhouding mag worden herleid tot louter VOORKEUR, mits deze scherp wordt gesteld. Op dit punt kan dan gemakkelijk contact gevonden worden met de moderne substitutieleer van Pareto, Hicks, Stigler, c.s.

De terminologie „subjectief” is ietwat misleidend. Subjectieve waarde heeft al een objectief element, dat in nut niet aanwezig is. Door het gemis van een maatstaf kan mijn nut niet met het uwe vergeleken worden, maar onze verhoudingsfactoren kunnen wel vergeleken worden. En juist daarin ligt de grote vondst van deze theorie: subjectieve waarde kan gebruikt worden als de basis voor de ruilpositie. Men zou het dan ook „ruilaanbod” kunnen noemen: het is de eerste stap van het individu naar de markt, en heeft nog geen invloed van de markt ondergaan.

De ruilmogelijkheden en -werkelijkheden modificeren deze verhoudingen en leiden tot gelijke verhoudingen bij alle betrokkenen, terwijl hoogstwaarschijnlijk hun individuele absolute nuttigheden toch altijd verschillend zijn. De ruil zelf doet dus een algemeen geldende verhouding ontstaan, die objectieve waarde wordt genoemd. Op dit punt en niet eerder kan de mathematische economie aanknopen, en mag men beginnen te spreken van onderling afhanke-lijke factoren in de determinering van het evenwicht.

HOOFDSTUK VII

OBJECTIEVE WAARDE (blz. 71-76)

De geldigheid van de nutsleer hangt geheel af van de juistheid van het waardebegrip, waartoe zij leidt. Als in de werkelijkheid waarde niet iets relatiefs is, dan deugt de nutsleer niet. De opwerpingen van hen die in de waarde een absolute grootheid zien, moeten dus onder ogen genomen worden.

Volgens Anderson is relatieve waarde ondenkbaar zonder het bestaan van een absolute waarde te aanvaarden. Hij meent dat de hele discussie in de lucht blijft hangen, en zelfs een circelredenering insluit, als men de vraag naar de waarde van tarwe beantwoordt met een verwijzing naar de waarde van rogge. Het antwoord is dat niet naar de waarde van rogge verwezen wordt, doch naar de rogge zelf. Waarde wordt niet opnieuw verklaard met behulp van waarde, en is niet het laatste element waarop de prijs wordt gebaseerd. Waarde hangt niet in de lucht als men het herleidt tot nut, en de nutsverhouding van tarwe en rogge de beslissende rol laat spelen.

Ook in de theorie van het geld is er niets dat ons ertoe dwingen zou om naar een absolute conceptie van de waarde om te zien. Een geldprijs vindt zijn betekenis niet in zichzelf, maar in het prijzensysteem, d.i. in relatie tot andere goederen.

Nut is geen constituerend element meer van de objectieve waarde. Subjectieve waarde is essentieel een nutsverhouding, maar objectieve waarde is een product van de markt, een verhouding van goederen. De hoegrootheid van deze verhouding wordt in eerste instantie beïnvloed door de nutsverhoudingen van de betrokkenen, en tenslotte worden beiden geëqualiseerd. Maar zij zijn nooit identiek. Nut en nutsverhouding blijven altijd iets individueels.

HOOFDSTUK VIII

DE NUTSTHEORIE (blz. 77-91)

In plaats van waarde en prijs tot nut te herleiden, blijkt dus dat de nutsleer uiteindelijk het nutsbegrip geheel elimineert. Nut behoudt enkel een plaats in de aanvang van de theorie, maar wijst ten slotte op WAARDE als de dominerende factor zowel in de ruil als in de productie. Correlatie tussen nut en waarde bestaat alleen in de enkelvoudige huishouding, niet in een ruilgemeenschap tussen verschillende personen. Geld heeft, in de technische terminologie, geen nut, maar enkel waarde.

Nut heeft afgedaan als deel van de evenwichtstheorie van de prijs: er is en er kan geen evenwicht bepaald worden in termen van nut; en de toerekenings-leer is geheel vervallen. Toch blijft nut een plaats behouden in de theoretische economie. Vooreerst is het begrip nodig als logische basis voor de ruil, en vervolgens kan men het niet ontberen in de oplossing van de oude paradox tussen de gebruiks- en de ruilwaarde. De „*pièce de résistance*” van de nutstheorie is de constructie van het subjectieve waardebegrip als een relatief concept. Uitschakeling der nutsleer leidt onmiddellijk tot een economie, die niet meer is dan wiskunde toegepast op het zakenleven; van een sociale wetenschap is er dan geen sprake meer.

De moderne benadering van het probleem door middel van de indifferentie-kromme kan de plaats van de nutstheorie niet innemen. Zij is immers essentieel een evenwichtstheorie, die het bestaan van prijzen, inkomens en de ruil, ook logisch, vooropzet. Als zodanig kan zij ons wel een inzicht in het prijzen-stelsel bieden, maar noch

de betekenis van de prijs zelf, noch de diepere grond van het hele systeem in verband met de behoeften, verklaren.

De meeste moeilijkheden die tegen de theorie gemaakt werden in de loop van de tijd, waren gericht tegen die onderdelen die thans verlaten zijn, zoals het hedonisme en de doorgevoerde toerekening van het nut. Andere opwerpingen berusten op een misvatting die in deze theorie een verklaring zoekt van werkoorzakelijkheid: men moet steeds in het oog houden dat de nutsleer slechts een logische ondergrond voor de ruil wil opbouwen. De realiteitswaarde van zulk een systeem hangt niet af van het al of niet bestaan van grensnut in het werkelijke leven; het is voldoende dat er enig contact bestaat met dat leven, zodat de elementen van het begrip uit de feitelijkheid kunnen worden afgeleid.

De opwerping dat de nutsleer bevooroordeeld is ten gunste van het heersende kapitalisme steunt op enkele uitingen van J. B. Clark; maar door het nut uit te schakelen als richting gevende factor van de productie, wordt deze moeilijkheid geheel ontzenuwd. De nuts-theorie blijft zuiver verklarend en raakt op geen enkel punt de vraagstukken van rechtvaardigheid of zelfs van wenselijkheid in het economische leven.

Met de verwijdering van de lust-en-onlust psychologie is ook de noodzaak verdwenen een rigoreus rationaliteits-principe te aanvaarden. De voorkeur, vervat in het begrip van de subjectieve waarde, mag irrationeel zijn; dat maakt geen verschil voor de theoretische beschouwing. Het enige dat verondersteld moet worden is, dat niemand die een keuze heeft tussen A en B, A verkiest omdat hij aan B de voorkeur geeft. Tegen zulk een postulaat kan men moeilijk bezwaar maken. — Ook het principe van het eigenbelang houdt geen stand daar de voorkeur geheel op altruistische motieven mag berusten.

HOOFDSTUK IX

SOCIAAL NUT (blz. 93-102)

De nutstheorie heeft nog een groot aantal supporters in de Verenigde Staten. Noch de Indifferentie Analyse, noch het Institutionalisme zijn er in geslaagd haar te doen verdwijnen. Zij is in een kleinere hoek gedrongen en heeft veel minder pretenties, maar schijnt in dat hoekje thans stevig verankerd te zijn.

Van historisch belang was de poging om de waarde te baseren op het sociale nut in plaats van op het individuele. Thans vindt deze

methode wel geen aanhangers meer, maar een bespreking ervan stelt de rol van het individuele nut in de huidige theorie toch in een scherper licht. J. B. Clark heeft getracht een absoluut waardebegrip te construeren, maar zag zeer goed in dat dit met individueel nut niet geschieden kon. Elk goed wordt daarom door hem beschouwd als een „bundel van nuttigheden”; het grensnut van elk dezer delen wordt door verschillende individuen of groepen van individuen bepaald; geen enkel persoon bepaalt het grensnut van alle delen. De markt coördineert al deze gedeeltelijke waarderingen tot een sociaal nut.

Clark maakt het niet duidelijk of deze coördinatie louter een mechanische optelling is, dan wel een organische samenvatting. Zeer expliciet identificeert hij echter sociaal nut en waarde, maar kan dit slechts doen door een sprong in zijn redenering, die toegeschreven moet worden aan zijn verlangen om de vrije inkomensverdeling te verdedigen op gronden van sociale rechtvaardigheid. Seligman nam Clark's idee over, maar vermeed de sprong in diens argument. De gelijkstelling van sociaal nut en ruilwaarde wordt bereikt door de mechanische samenvoeging der individuele nuttigheden. Echter kan dit slechts gedaan worden door het verschillend nut van verschillende individuen in geld uit te drukken, en daardoor in de cirkelredenering, in Hoofdstuk V vermeld, verstrikt te raken.

Anderson verwerpt de idee van sociaal nut, doch beroept zich op Clark in de verdediging van zijn absoluut waardeconcept: het is evenals bij Clark, de uitdrukking en de maatstaf van het maatschappelijk welzijn. Toegegeven moet worden, dat maatschappelijke factoren een grote rol spelen in de bepaling van de hoegrootheid van de prijs, maar zij maken geen deel uit van diens wezen.

Het is best mogelijk, dat een conceptie van sociale waarde gebaseerd op sociale psychologie, en onafhankelijk gemaakt van de actuele prijs, meer bruikbaar en vruchtbaar zou kunnen zijn voor sociale politiek, maar zulk een begrip van sociale waarde beantwoordt niet aan de huidige, feitelijke, karaktertrekken van het ding dat prijs wordt genoemd.

APPENDIX

CONSUMER'S SURPLUS (blz. 103-108)

Het al dan niet bestaan van een consumer's surplus is van enige invloed op de nutsleer. Eist logische consequentie een reëel surplus,

en bestaat dat in de werkelijkheid niet, dan valt de theorie, geheel of ten dele. Nu toont de nutsleer een surplus aan, daar de eenheden van een goed die vóór de grenseenheid gewaardeerd worden, groter nut dan het grensnut bezitten. Maar dit is slechts een surplus in de logische orde. De nutskromme zelf is een middel uitgedacht door onze verbeelding, om het een houvast te geven in het rijk der abstracte begrippen. De „voorafgaande” eenheden gaan vooraf, niet in de tijd, maar in de verbeelding.

Surplus in de werkelijkheid berust op plotselinge verschuivingen in het economische leven, en het brengt helemaal niet het idee van welzijn met zich mee. In normalere omstandigheden vindt men het in kleine veranderingen, en altijd wordt het uitgedrukt in prijsverschillen, waarachter het nutselement schuil gaat, als het al aanwezig is. Er een aanwijzing van sociale vooruitgang in te zien is geheel ongemotiveerd.

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INTRODUCTION

Economic theory in the United States of America at the beginning of this century showed a picture of great uniformity and agreement. Building on Alfred Marshall's structure and inspired by him it seemed that the neo-classical school had won the following of all outstanding economists, and that its economic system could consider itself secure and safe against any daring attacks from "heterodox" sources.

Only two voices were heard in protest both vociferous and rather passionate but from two entirely different sides. Thorstein F. Veblen attempted to destroy the wall of abstraction which surrounded the theory, and to assume economics as a science into the entirety of sociological thought which according to him is typically evolutionary. Only his followers succeeded in penetrating the field through the gap made by him, and in having their ideas accepted on a par with those of orthodox theory. They form what is usually called the Institutional School.

The second voice belonged to Herbert J. Davenport who with strong logical arguments attacked the subjectivity of the school. His contributions in the long run influenced the structure of the value theory much more deeply than those of the Institutionalists, since he worked from the inside and touched the process of thought itself rather than merely trying to establish a new approach or demanding acceptance of a new method.

Both attacks were directed at the utility concept and threatened to undermine the whole system by assailing its fundamental idea. The Institutionalists wanted nothing more or less than the total destruction of the old theory, while Davenport desired only to dissolve the reduction of price to utility and to leave the superstructure unimpaired ¹).

It is possible to draw a parallel between the German Historical

¹) Herbert J. Davenport, *Economics of Enterprise*, New York, 1913, p. 104.

School and Institutionalism, but one should not forget that the former consisted in a reaction against a stagnated classicism, while the latter attacks a yet unfinished system and is able to use more modern scientific means. Moreover, the new current is not only interested in a historical interpretation but above all in a "grasping" of the present in measure and number in order to predict the future. The actuality and realistic traits connected with such a study are very attractive but might lead to a minimizing of the importance of deeper economic thought; it gives place and purpose to many persons untrained in theory proper. In many cases an antipathy to all abstraction and deeper insight results so that all thought is reduced to measure and number. The criticism of the current theory is rather easy to refute but its influence is not so easy to contend with; very often its supporters are the cause of many misunderstandings and of the loss of great talents for the advance of economic theory as well.

The existence of the Institutional School in the United States seems to justify this study of the marginal utility theory in being limited to American authors. Nowhere else did the neo-classical school undergo such a struggle and encounter such opposition for so long a period. Thus there is reason to ask: What remains of utility and marginal utility in economic theory in the United States?

However strange it may seem, it is mostly Davenport's ideas that enable us to save whatever there is to be saved of the marginal utility theory²). His logical penetration touched the weak spots but at the same time also confirmed the stronger points. Utility analysis under that touch has become much more clear and concise; though restricted to a very limited part of economics, it retains a definite position in the process of economic thought.

The newest development of the theory in this field is the approach of the demand curve by means of the indifference curve. Despite Hicks' opinion that with his discovery marginal utility can be discarded forever and has become entirely superfluous, many contend that with the indifference curve no essential change has taken place³). The subjective approach has remained the same and the

²) Alvin S. Johnson, "Davenport's Economics and the Present Problems of Theory," *Quarterly Journal of Economics*, Vol. XXVIII, 1914, p. 418; "Davenport takes his stand in the center of the ancient field of controversy, as a champion of the law, despite his manner of grisly revolutionary."

³) Eric Roll, *A History of Economic Thought*, New York, 1942, p. 509; Oskar Morgenstern, "Professor Hicks on Value and Capital," *Journal of Political*

indifference concept itself can only be expounded with the help of utility. In the United States this new approach was received with much enthusiasm and has already found a place even in the college textbooks⁴).

Though the following study does not aim at giving an exhaustive description of the present status of the utility theory in the United States, still all the prominent authors who influenced and shaped the trend of the theory, have been considered. The method used is rather eclectic and proceeds consciously towards the presentation of a well-rounded and logically consistent body of thought. Consequently out of several views and opinions that one will be selected which is most suitable for such a purpose, provided it receives sufficient backing from a number of outstanding writers. Divergent trends will be noted and criticised, wherever possible, by referring to actual discussions among American economists. The main lines agree with the views of Davenport, Haney, Viner, Taussig, J. M. Clark, Bye, and with the recent attitude of F. H. Knight. F. A. Fetter seems to differ only in terminology, but the analysis differs more or less substantially from J. B. Clark and from Seligman in its rejection of "social utility", again from J. B. Clark and also from Carver in that it discards the theory of imputation, from Anderson and the school of "social value" in not allowing an absolute value concept, from the early marginalists in fundamentally breaking with hedonistic utilitarianism and substituting "desire" for "pleasure", and from Fisher and the mathematical school by the elimination of money from the utility theory proper, relegating it to the field of values.

To prevent any misunderstanding it may be noted here, once for all, that in the following pages the utility theory is viewed solely for the purpose of explaining the value phenomenon as it occurs in modern "capitalistic" society.

Economy, Vol. II, 1941, p. 366. Frank H. Knight even condemns it as "a movement in backward direction" ("Realism and Relevance in the Theory of Demand," *Journal of Political Economy*, Vol. LII, 1944, p. 289).

⁴) Alfred L. Meyers (*Elements of Modern Economics*, New York, 1937), and Kenneth E. Boulding (*Economic Analysis*, New York, 1941) use both the utility and the indifference analysis. George J. Stigler, *The Theory of Competitive Price* (New York, 1942), is intended for more advanced study; it uses the indifference method exclusively. A comparison between both methods for teaching purposes was made by Claude E. Puffer ("Indifference Curves versus Marginal Utility," *American Economic Review*, Vol. XXX, 1940, p. 118).

CHAPTER I

DEFINITION OF UTILITY

The attempt to define the concept of utility as used in economic theory meets with several obstacles. For the purpose in hand, concepts may be divided in two classes:

1. Those derived from common experience through the senses, and long since established by common thinking and speaking.
2. Those more or less arbitrarily created by science for the purpose of facilitating the progress of teaching by describing a typical complex situation with one word, or even merely of facilitating the progress of thought by expressing an intricate process of thought in a symbol or in technical terms.

There are many concepts in daily use which in a certain stage of analysis in science rather belong to the second category; for example, the concept of an animal. Others originally belonging to the second group have long since been transferred into common speech; for example, the idea of a pound or a yard.

It is obvious that a concept as marginal utility in economic theory belongs to the second group and as yet shows little inclination to be transferred to common speech. Its very nature makes it unsuitable for acceptance by everyday usage, while its diverse meanings, interpretations, and definitions remove it even further away. Take concepts like *pi*, or *i* in mathematics. Science agrees perfectly on their meaning, their use, and definition, but unlike "yard" they seem to be excluded from the first group of concepts. They were not derived from experience and will never be experimentally understandable. Yard, on the other hand, is that definite length of a certain material object, tangible, and capable of being absorbed into man's intellectual system through the senses.

Utility manifestly belongs to the first group, and is attributed to anything that is useful, or can be used, apparently towards an end. It admits degrees since we speak of greater or lesser utility. It can be direct or indirect according to the object's more or less remote

connection with the end. Milk is useful because it is drinkable and thus contributes towards man's health. Health itself is never said to be useful and may therefore be considered to be an end in itself. In this sense, milk has direct usefulness, but it may also be used to make butter, or other things, not ends in themselves but useful means. The utility of milk is then derived and indirect.

On this utility the value of a good seems to be founded; and the greater its utility the more valuable it is said to be. Thus water and air are extremely useful and therefore extremely valuable.

Here enters the paradox of the cheapness of some goods which are so useful as to be necessary. Their price, however, is so low that they seem to have no value at all. For price is connected with value as an indicator. How valuable is this diamond ring, this machine, and so forth? The answer is given by referring to the price.

A satisfactory solution of this paradox is afforded by the relative scarcity of different goods, but science is bound to analyze this cause called scarcity and must attempt to explain its workings and its influence on the value of things.

In this analysis complex and intricate situations occur and such lengthy distinctions are needed that refuge and help must be sought in new concepts and technical terminology. Thus we find :

value in use	and value in exchange
subjective value	and objective value
marginal utility	and social utility

These concepts though ultimately connected with experience and based on it, nevertheless are creations of the scientific mind, and their content is subject to some more or less arbitrary judgment on the part of the scientist who casts them as his analytical tool. Anyone is free to do so provided he be consistent in the use made of this idea¹). Whether the new concept furthers the science or not is another question. To do this it will have to be tested by other scientists

¹) Cf. John Maurice Clark, *Preface to Social Economics*, New York, 1936, p. 11: "A careful thinker always wants to know for what purpose a definition is to be used before he will admit that it expresses the essential and significant features of the thing that is to be talked about. 'Value' (as actually used) means one thing for purposes of taxation and another thing for purposes of regulation, and there are similar varieties of meaning covered by the terms cost, wealth, capital, and income. Each term covers a related family of ideas, so that it comes to be of the essence of sound method to choose the particular idea that is appropriate to the purpose in hand, and to avoid all conclusions based on a merging of this idea with others in the same family."

and be accepted by them in implicit or explicit agreement. Only then does it become incorporated in the science as such. This acceptance will depend on its service in the explanation of economic phenomena, its "standing for some intermediate analysis subsidiary to the elucidation of the problem under investigation" ²⁾).

It has been said that

the economist must approach his linguistic problems more nearly in the spirit of the literateur and philosopher. It is not his business to invent technical terms ³⁾.

In other words, let us be vague and rather insinuate what we mean than express it exactly, in the interests of general agreement; e.g., just what constitutes value economists may never agree upon, though they will admit that it has something to do with usefulness and scarcity; also, there are both subjective elements and objective traits which in the main seem to be connected with exchange. But such an attitude may suffice for the descriptive purposes of economic history; it will never give us an understanding of economic life.

There are very few, if any, universally accepted concepts in the science of economics. Many have been proposed and are in common usage in different schools, but hardly any escape the condemnation of a large group. Unless economics gets them, it will remain more a method than a science and a fight between polemicists rather than a body of doctrine, law, and truth.

Concepts like wealth, capital, and capital goods; scarcity and disutility; cost and foregone opportunity; abstinence, waiting, and productivity; rent, consumer's surplus, quasi-rent; national dividend, and wage-fund — are they universally accepted? If so, how are they defined, for which purpose are they used, what role do they play in economic science? Only a study of the outstanding authors can give us the answer, and prepare the ground for a uniform science, which is the only one deserving the name.

As to utility, it is obvious that there must exist a connection between utility and the satisfaction of wants. The most common description proposes utility as the property of a good and calls it a quality, a power, an ability, or a capacity to satisfy a want.

²⁾ Herbert J. Davenport, *Value and Distribution*, Chicago, 1908, p. 332.

³⁾ Abbott P. Usher, "The Content of the Value Concept," *Quarterly Journal of Economics*, Vol. XXXI, 1917, p. 712. The author apparently used the approach which he advocates when he included the "philosopher" in his statement.

- Quality : Raymond T. Bye, *Principles of Economics*, 4th ed., New York, 1941, p. 17
 Lionel D. Edie, *Economics: Principles and Problems*, 3d ed., New York, 1942, p. 318
 Richard T. Ely, *Outlines of Economics*, 6th ed., New York, 1937, p. 96
 Fred R. Fairchild, Edgar S. Furniss, Norman S. Buck, *Elementary Economics*, Vol. I, 3d ed., New York, 1936, p. 10; *Economics*, 2d ed., New York, 1940, p. 9
 J. Laurence Laughlin, *The Elements of Political Economy*, 2d ed., New York, 1902, p. 18
 Henry R. Seager, *Introduction to Economics*, New York, 1904, p. 48
 Frank W. Taussig, *Principles of Economics*, Vol. I, 4th ed., New York, 1939, p. 106
- Power : Raymond T. Bye, *Principles of Economics*, 3d ed., New York, 1934, p. 15
 Thomas N. Carver, *The Distribution of Wealth*, New York, 1904, p. 11
 Richard T. Ely, *Outlines of Economics*, 1st ed., New York, 1893, p. 119
 Arthur T. Hadley, *Economics*, New York, 1896, p. 78
 Frank H. Knight, *Risk, Uncertainty, and Profit*, Boston, 1921, p. 61
- Ability : Frank W. Taussig, *Principles of Economics*, Vol. I, 3d ed., New York, 1921, p. 116
- Capacity : Frederick S. Deibler, *Principles of Economics*, 2d ed., New York, 1936, p. 65
 Henry R. Seager, *Introduction to Economics*, New York, 1904, p. 48
 Fred M. Taylor, *Principles of Economics*, 9th ed., New York, 1925, p. 47
 George P. Watkins, *Welfare as an Economic Quantity*, Boston, 1915, p. 1
- Property : Francis A. Walker, *Political Economy*, New York, 1883, p. 87
- Attribute : Roy E. Curtis, *Economics*, Chicago, 1928, p. 169

All these definitions assume only the existence of a want, and explicitly refrain from any judging of the want by excluding any and all normative elements from the concept. Commons, Fetter, and Solterer are the only ones to object to this exclusion but their reasons cannot be called decisive⁴).

⁴) For an explicit exclusion of the normative element, see, e.g., Carver, *The Distribution of Wealth*, p. 11; Irving Fisher, *The Nature of Capital and Income*.

In the application of the utility concept a subjective element appears quite prominently, despite the fact that it is not mentioned in the definition. This subjective trait is needed to conduct the process of thought to the concept of "marginal utility" by way of "diminishing utility". The decrease in utility with the increasing supply of a good is to be ascribed to the lesser intensity of the want, and not to a change in the quality, power, or capacity of the object. Naturally this leads to contradictory statements. Thus Seager first introduces utility as a "capacity or quality in goods", and then maintains that the intensity of wants determines the degree of the utility⁵). Ely first calls utility the quality of a commodity but later speaks of utility as a value concept "in a personal and a subjective sense" ⁶).

Not always does the contradiction appear as clearly as in these quotations, but it cannot remain absent in the further development of the process of thought and is always at least implicitly present.

Deibler tries to avoid this, but he seems to get confused in three different phases when he first calls utility a "capacity," "attribute," and "quality" but then wants to consider it not as a property inherent in the good but as a relation; yet later on he returns to the idea of an "attribute," this time, however, "reflected from the state of the desires of consumers" ⁷).

Others introduce a distinction between objective and subjective utility. Objective utility is a quality of the good, an unchangeable, technological datum; subjective utility is associated with the consumer and consists in a valuation based on objective utility. This subjective valuation is the concept to which further analysis refers ⁸).

New York, 1906, p. 42; Meyers, *op. cit.*, p. 10. Philosophically speaking, "utility" indeed possesses a normative character, but the economist is entitled to exclude this provided he is consistent. One may regret that one and the same word is used to denote two related yet different concepts but it does not invalidate the system. Those who object to the exclusion prefer a technological concept of utility containing elements of social utility and therefore suitable for use in studies of welfare and social progress. Cf., John R. Commons, *Institutional Economics*, New York, 1934, pp. 174 ff. and 378; Frank A. Fetter, *Economic Principles*, New York, 1915, p. 25; Joseph Solterer, "Reflections on Utility," *Scientia*, 1935, p. 353.

⁵) Seager, *Introduction to Economics*, pp. 48 and 63.

⁶) Ely, *Outlines of Economics*, 6th ed., pp. 96 and 150.

⁷) Deibler, *op. cit.*, p. 65 f. What is to be made of a "quality" which is "increasing or decreasing when, in fact, the change is not in the good itself but in the purchaser"?

⁸) Cf. Zenas C. Dickinson, *Economic Motives*, Cambridge, 1922, p. 229 f.:

Several attempts have been made to give this subjective utility a name of its own. Carver speaks only of "desire" and "utility" as two sides of one and the same thing⁹), which is difficult to accept, because they belong to different subjects. The term "desire", moreover, is too vague in meaning and too common in everyday speech to make it a suitable term in this connection.

Irving Fisher repeatedly tried to promote a new technical term. When Pareto's proposition to use an entirely strange word ("ophelimity") failed, Fisher tried "desirability," following the example of Gide and Marshall¹⁰). His definition is as follows:

The desirability of any particular good, at any particular time, to any particular individual, under any particular conditions, is the strength or intensity of his desire for that good at that time and under those conditions¹¹).

Though some accepted the idea¹²) the proposition was not universally adopted. The use of the term "utility" in expressions such as "diminishing utility" and "marginal utility" is so established that it seems to be a hopeless task to change this custom. A subsequent attempt by Fisher to introduce the term "wantability" also was unsuccessful, even though Dickinson approved of it¹³).

Haney¹⁴), on the other hand, keeps the term "utility" for the subjective phase and calls the capacity of a good to satisfy a want

"This centering of attention on the behavior of the subject with reference to the object is characteristic of economists' practice, though not of their writings on utility." See also Seager, *Introduction to Economics*, p. 49, and *Principles of Economics*, New York, 1913, p. 63: "Value in the subjective sense," where the context makes clear that he is speaking of "utility in the subjective sense".

⁹) Thomas N. Carver, *Principles of Political Economy*, Boston, 1919, p. 277.

¹⁰) Fisher, *The Nature of Capital and Income*, p. 42 f. See also: Fisher, "Is 'Utility' the Most Suitable Term for the Concept It Is Used to Denote?", *American Economic Review*, Vol. VIII, 1918, p. 335.

¹¹) Fisher, *Elementary Principles of Economics*, New York, 1912, p. 282.

¹²) E.g., John R. Turner, *Introduction to Economics*, New York, 1919, p. 111. Yet it seems to be difficult for Turner to adhere to the subjective sense until the end: "Desirability is a quality of economic goods or services which is calculated or fitted to excite a wish to possess... Desirability... expresses accurately the meaning intended, whereas the utility is burdened with so many definitions as to have no one distinct meaning."

¹³) See especially Fisher, "A Statistical Method for Measuring 'Marginal Utility'," in: *Economic Essays Contributed in Honor of John Bates Clark*, edited by Jacob H. Hollander, New York, 1927, p. 164; Dickinson, *Economic Motives*, p. 229 Note.

¹⁴) Lewis H. Haney, *Value and Distribution*, New York, 1939, p. 215.

"objective use value". Whether in doing this he was influenced by Commons' writings is difficult to say. Commons certainly makes a sharp distinction between the objective use values and the psychological, subjective, arbitrary, utility concept of the neo-classical school. Use value, according to him, is entirely physical and

should be defined in the same way as the color, or shape, or weight, or bulk, or volume, of objects. Use value has indeed quantitative dimensions, but these are physical quantities, with their own units of physical measurement, such as yards of cloth, cords of wood, kilowatt hours of electricity¹⁵).

Yet economics cannot concentrate its attention solely on the subjective view and exclude objective use values as mere "technical" concepts, for on them we must build the notions of efficiency and managerial transactions¹⁶).

Haney, however, clings to the subjective interpretation, though his description remains very vague and unsatisfactory:

Utility... is a simple, vague tendency, non-purposive, and involving no reflective choice. It is wantedness¹⁷).

The word "tendency" denotes the subjective nature but also places utility in the consumer himself, not only as the intensity of a want, as Fisher does, but in the act or aspiration of the consumer.

Both the objective definition and the subjective description are unsatisfactory. The former is abandoned by most authors as soon as the related ideas of diminishing utility and marginal utility enter the discussion, while the latter violates the almost self-evident truth that not the person but the desired object possesses utility¹⁸). The utility of a good may correspond to the intensity of my desire or want but it is not the intensity itself.

In the meantime Davenport tried to solve the difficulty by considering utility as a relation, founded, on the one hand, on a quality of the good, and, on the other hand, on the wants of the consumer. He makes a logical distinction between two concepts which in reality

¹⁵) Commons, *Institutional Economics*, p. 178.

¹⁶) *Ibid.*, Note 29.

¹⁷) Haney, *Value and Distribution*, p. 169.

¹⁸) Take, for example, expressions as "the production of utilities," "time utility," "place utility," "form utility," etc., all of which denote the object.

are identical. The utility of gas is based on its property to give heat by oxidation and on the fact that someone desires the heat.

Utility depends upon properties in the subject; but the word itself testifies to the existence of a user, to whom the thing is useful¹⁹⁾.

And again

Utility as expressed in the existence of goods is merely the relation of adaptedness of the thing or fact to the human need or desire²⁰⁾.

This idea of a relation can be found in the writings of several authors, though as a rule not as clearly and explicitly as in Davenport. Thus, Tuttle speaks of "the qualitative weal-relation between man and his environment"²¹⁾. Following him, but not sufficiently distinguishing between value and utility, Keasbey notes the two aspects, subjective and objective, in the one concept²²⁾. Gemmill²³⁾ gives utility the sense of "wantedness" and "desiredness," which is expressive of the idea of a relation. Haney²⁴⁾, too, speaks of wantedness in one breath with the purely personal and subjective aspects which he indicates with the word "tendency". The same applies to Fetter who, using the term "value" for what others call utility, notes the relationship, but on the whole favors the subjective approach²⁵⁾. Mention of the relation may be found in Deibler, as was shown above²⁶⁾, and sometimes in works that

¹⁹⁾ Davenport, *Value and Distribution*, p. 567. Cf. also: "The fallacy which underlies the terms 'intrinsic value' and 'intrinsic utility' is evident. Usefulness is a relation rather than a quality." (Davenport, *Outlines of Economic Theory*, New York, 1896, p. 20.) He appeals to Senior: "Utility denotes no intrinsic quality, it merely expresses a relation to a desire or want." (*Value and Distribution*, p. 317 Note.)

²⁰⁾ *Ibid.*, p. 569. Cf. Davenport, *Economics of Enterprise*, p. 86 f.

²¹⁾ Charles A. Tuttle, "The Fundamental Economic Principle," *Quarterly Journal of Economics*, Vol. XV, 1901, p. 218 f.

²²⁾ Lindley M. Keasbey, "Prestige Value," *Quarterly Journal of Economics*, Vol. XVII, 1903, p. 456.

²³⁾ Paul F. Gemmill, *Fundamentals of Economics*, 3d ed., New York, 1939, p. 22; also Paul F. Gemmill and Ralph H. Blodgett, *Economics, Principles, and Problems*, rev. ed., Vol. I, New York, 1942, p. 38.

²⁴⁾ Haney, *Value and Distribution*, p. 169. In his *History of Economic Thought*, however, he explicitly proposes utility as "the manifestation of the relation between goods and the wants which they gratify". (3d ed., New York, 1936, p. 583.)

²⁵⁾ Fetter, *Economic Principles*, p. 102. (See also *Ibid.*, p. 19.)

²⁶⁾ Page 9.

touch the utility theory only incidentally²⁷). Dickinson adheres to the purely subjective aspect but in one instance he speaks of the simple quality of "being wanted by some subject"²⁸). Watkins explicitly combines both aspects in his utility concept; it "partakes of both the objective and the subjective"²⁹).

Eddie combines, rather unsuccessfully, the relative aspect and the purely objective meaning. On the one hand, he calls utility:

A quality that something possesses just as power is a quality³⁰).

yet, on the other hand, he claims that

Utility arises from the relationship between an individual and good and/or services. This relationship may be based objectively... on the quality or characteristic of the good or service, or it may be based subjectively on the valuation or estimate which the individual places on a good or service as a means to the satisfaction of his wants³¹).

Here he shows utility as arising from a relation and apparently intends to identify both. The two terms of this relation are indicated but not sufficiently combined. One cannot build a relation either on one or on another term. Both terms are essential to the relationship and should enter into the definition.

Frank H. Knight³²) identifies the power to satisfy wants with the quality of being wanted. He discovers a "psychological variable" which corresponds to the "degree of utility of a certain rate of consumption of the good". In doing this he comes very near to the idea of a relation between goods and wants, but he does not explicitly mention it. Instead he proceeds to stress the fact that wants are interrelated and consequently arrives at the position that utilities are essentially relative in this sense, that the existence of one utility is "conditioned by that of the alternative"³³). He finds it impossible

²⁷) E.g. George M. Peterson, *Diminishing Returns and Planned Economy*, New York, 1937, p. 165.

²⁸) Dickinson, *Economic Motives*, p. 229. Also Bruce W. Knight and Nelson L. Smith, *Economics*, Vol. I, New York, 1929, p. 333: "The utility of a commodity refers to no more than the fact that the commodity is desired." But the authors fail to see a relation in this fact, and still call it a quality.

²⁹) Watkins, *op. cit.*, p. 10.

³⁰) Eddie, *op. cit.*, 3d ed., p. 318.

³¹) *Ibid.*, p. 4.

³²) Knight, *Risk, Uncertainty, and Profit*, pp. 59 ff.

³³) *Ibid.*, p. 65 Note. See also Knight, "Economic Psychology and the Value

to conceive utility as an absolute magnitude, as remains possible in Davenport's conception and in the opinion of those who select "wantedness" for their definition³⁴).

Another modification is made by Solterer, who conceives utility functionally, as a function of an end. The relation consists in the fitness towards the end. He returns, however, partially to the philosophical concept of utility when he does not limit the meaning of his term "end" to mere satisfaction of wants but in general speaks of an "objective end". To reach such an objective end may afford satisfaction but that is not necessarily the case. Utility in this conception can exist without such satisfaction³⁵).

There are, therefore, many differences in the conception of utility³⁶). In general, the textbooks devote little space to this subject and are very dogmatic in their treatment. It seems that the authors wish to hurry on to more important topics. But the inner contradiction impairs the system and makes it vulnerable. The best way to avoid any contradictions seems to lie in considering utility as a relation. This permits both subjective and objective approaches; it facilitates and simplifies the answer to many objections and criticisms. The Commission on Economic Agreement (1934) has sanctioned this view by defining utility as

That relationship of a good to a human being which is expressed by saying that the good is desired by the human being³⁷).

Problem," *Quarterly Journal of Economics*, Vol. XXXVIII, 1924, p. 374 Note.

³⁴) Knight's interpretation of utility changed in the course of time. Originally he not only saw in it a function of scarcity, but claimed that as a result of this relativity only relative utility can be dealt with scientifically at all. This view is "generally recognized" ("The Concept of Normal Price in Value and Distribution," *Quarterly Journal of Economics*, Vol. XXXII, Dec., 1917, p. 67) and the "only tenable view" (*Ibid.*, p. 70 Note). Later, reviewing Cassel's *Theoretische Sozialökonomie* (*Quarterly Journal of Economics*, Vol. XXXVI, Dec., 1921, p. 146), he relents considerably: "For our part the conviction grows that value (i.e., utility) theory is misplaced and perhaps mishandled in the conventional economics, but none the less is necessary." Yet, as can be inferred from the previous note, he continued to stress the functional relativity, until recently (See Chapter VIII, page 81 Note).

³⁵) Solterer, "Reflections on Utility," *Scientia*, 1935, p. 353.

³⁶) No mention has been made in the text of Fisher's quantitative concept since no one followed him in this. Fisher wants to see utility as a measurable magnitude (e.g., "Mathematical Investigations in the Theory of Value and Prices," in: *Transactions of the Connecticut Academy*, Vol. IX, July, 1892, p. 89.)

³⁷) *Handbook of Accepted Economic Definitions, Principles, and Statements*, New York, p. 3. (Cited in Gemmill, *Fundamentals of Economics*, 3d ed., p. 60.)

CHAPTER II

DIMINISHING UTILITY

The path which logically leads from utility to marginal utility can bring us there only by our stopping in the middle of the road and there reconsidering the point of departure and the direction to take. The concept of utility is important only because it brings us to the idea of marginal utility, and beyond marginal utility to value.

Starting with utility we can develop the marginal utility idea only by means of the principle of diminishing utility. It was the discovery of this principle and the possibility of its application to the problem of value that gave rise to the subjective value theory. Even the opponents of the utility school consider this principle as the main contribution of that school to economic thought, because it contains in itself the explanation, or at least the alleged explanation, of the decreasing tendency of the demand curve¹).

Every student in economics has at the proper time given thought to the use which he would make of several pails of water which he placed before him in his imagination: the first pail was to be used for the most intense want; the second, for one of less intensity, etc. The example of the oranges (or apples) which are to be consumed in succession is of a similar nature: the first orange gives more satisfaction than the second, the second more than the third, etc²). Is there sufficient justification to conclude from these examples to the existence of a principle of supposedly universal validity? The common procedure in economic textbooks consists in the author simply mentioning the principle and then "proving" it by referring to a few illustrations. Thus Carver says: "The more fully a want is satisfied the less intense it becomes," and on the basis of only a few

¹) Cf. e.g. Jacob Viner, "The Utility Concept in Value Theory and Its Critics," *Journal of Political Economy*, Vol. XXXIII, 1925, p. 381.

²) Cf. Taussig, *op. cit.*, 4th ed., p. 111; Deibler, *op. cit.*, p. 213; Edwin R. A. Seligman, *Principles of Economics*, New York, 1905, p. 175 f.; Gemmill and Blodgett, *op. cit.*, p. 200.

examples accepts this as a universal principle with far-reaching results for the science:

Upon a class of facts as elementary as this is the law of value based, and this law governs, in the main, the industrial and commercial activities of society, and furnishes a basis for a large part of the science of economics³).

As against this position, the assertion has been made that diminishing utility is not the general rule in reality or that the normal case is descriptive of a situation in which utility remains constant:

The utility curve may be either positive or negative in slope, or probably more often it is zero in slope⁴).

This too can be demonstrated with the help of examples. The need for smoking, for stimulating drink, for newly invented means of recreation with which one has been unfamiliar, seems in many cases to increase rather than decrease.

It is of course possible to remark that these examples apply only to short periods, that after a while the ascending curve turns into a descending one, but it is difficult to prove this scientifically, since the only basis for such a remark is to be found in introspection. We "feel" this phenomenon to apply to us, and we "are certain" that it is universally valid, but that is as far as we can go; there is no scientific proof.

A parallel with the well-known psychological law of Weber and Fechner has at times been drawn⁵), but it manifestly identified the intensity of a desire with feeling and sensation in general. There is no reason for assuming that a desire decreases in intensity as soon as the perception by the senses shows signs of increasing dullness. Desires are subject to control by the will, even those that originate in the sensual nature of man. Some critics, however, go too far in concluding from the impossibility of applying this law that there is no such thing as diminishing utility⁶).

³) Carver, *The Distribution of Wealth*, p. 13 f.

⁴) Joseph Mayer, *Social Science Principles in the Light of Scientific Methods*, Durham (N.C.), 1941, p. 161.

⁵) See Dickinson, *Economic Motives*, p. 233 f.

⁶) O. Fred. Boucke, *A Critique of Economics*, New York, 1922, p. 59; A. J. Snow, "Psychology in Economic Theory," *Journal of Political Economy*, Vol. XXXII, 1924, p. 495.

A much more promising attempt was made by Viner. He starts with the negative slope of the demand curve as an experimental datum and sees in the principle of diminishing utility a working hypothesis which serves to explain its universality. The decreasing tendency of demand can be explained if one assumes that there exists a decreasing tendency in utility in each individual. And so:

Until, it is demonstrated to be contrary to established fact, or until a better hypothesis is available, the law of diminishing desire can stand on this fact alone⁷⁾.

But this conclusion is still hypothetical and the question is: can any other hypothesis be made which leads to the same result? The immediate explanation of decreasing demand in a market must be sought in the shape of the individual demand curves that compose it. If each of these exhibits a negative slope, then the social or total demand must have the negative tendency. We may assume, therefore, that the demand curve of a definite individual slopes downward. This may be caused by decreasing utility but that is not necessarily the case. Mere limitation of power in exchange gives a satisfactory explanation and can therefore be proposed as an alternative hypothesis or at least be combined with the former assumption⁸⁾.

Garver and Hansen proceed along the same line in their attempt to establish a proof of the "law of the inverse relation of utility and amounts available for consumption". They appeal to

the observed fact that as the individual extends his consumption of a commodity his willingness to pay money for each unit declines.

Moreover,

Statistical studies of the demand for goods which are used almost entirely for human consumption, such as potatoes, show a pronounced decline in the amounts of money people are willing to pay for a unit when the total amount to be sold is increased⁹⁾.

⁷⁾ Viner, *op. cit.*, p. 381. This method is in agreement with that of the natural sciences: starting with market data one reasons to the concept of utility. Cf. E. E. Lewis, "The Relation of Commodities in Demand," *American Economic Review*, Vol. XXVIII, 1938, p. 492 Note: "Utility... functions — not being themselves object of experience — derive their characteristics solely from the market behavior which they reflect."

⁸⁾ Bye, *Principles of Economics*, 4th ed., pp. 321 ff.

⁹⁾ Frederick B. Garver and Alvin H. Hansen, *Principles of Economics*, Boston, 1928, p. 148.

Here too the cost element has not been eliminated and the decline of the willingness to pay can be explained by a mere lack of money without any reference to diminishing utility. The authors do add that "it is a matter of common observation that the more of a good a person has the less does he treasure any particular item of it," but that is exactly what we set out to prove. The "common observation" can hardly be sufficient ground for establishing this general abstract law, since the cost factor inevitably remains present in all the observed facts.

Now, the limitation of power in exchange is of undeniable reality and not at all hypothetical. It must therefore be accepted as a cause of the decreasing tendency of the individual demand curve. And to make another hypothesis seems rather superfluous.

The alleged law of diminishing utility is not needed to explain the failure of some to buy as much of a good after a price increase as before, when the price increase would require giving up other things if they did ¹⁰).

The psychological theorizing first took the form of a law that utility, understood as a pleasure, decreases with increasing consumption. But this view was quickly seen to be both vulnerable to criticism and unessential... The demand for one commodity cannot be considered alone; it is a question of the extent to which consumers will choose to spend a limited income in one way rather than in other possible ways ¹¹),

Despite these reasons for considering diminishing utility superfluous in the explanation of the decreasing tendency in the demand curve, Viner can maintain his exposition and analyze the demand for one good only ¹²). The analysis admittedly remains incomplete,

¹⁰) Morris A. Copeland, "Economic Theory and the Natural Science Point of View," *American Economic Review*, Vol. XXI, 1931, Suppl., p. 70.

¹¹) F. H. Knight, "Demand," in: *Encyclopedia of Social Sciences*, Vol. V, 1931, p. 69.

¹²) Viner's argument could be strengthened by referring to the fact that the explanation afforded by the limitation in exchange power is insufficient in many circumstances, as shown especially in times of depression. An accumulation of large bank deposits and a general increase of liquid means in the hands of the consumers seems to be due to a lack of productive opportunities. A similar situation occurred during the war years when military demands caused a lag in production for civilian needs. Some goods simply disappeared from the market. Price control, however, kept the prices down of those goods which were still produced. But the consumer did not buy them, or, at least, did not buy all he could. Hence large liquid holdings appeared which invalidate any explanation

particularly in view of Knight's remarks. His objection to describing diminishing utility of one good follows from his own utility concept. Whether he is justified or not in asserting that the existence of one utility is conditioned by that of the alternative, there can be no reason for rejecting a separate study of the essential traits of utility. The existential conditions do not affect them, but only their actual measurability¹³). Hence, positive results may be obtained from Viner's procedure.

In general, however, the authors are satisfied with the introspective argument, and sufficiently convinced of the universal validity of this principle to apply it to their systems. Thus Bye, who acknowledges the possibility of an explanation by referring to limited exchange power, still maintains that

Human beings... make their purchases in accordance with the law of demand, and the law of diminishing utility is unquestionably one of the forces that lie back of that law¹⁴).

Kiekhofer bases the law on psychological and physiological

that takes refuge in the hypothesis of limited exchange power. The power was there, but the consumer felt not induced to buy those articles that were still for sale. Therefore it is necessary to assume another hypothesis, that of diminishing utility.

This proof does not directly lead to a universal principle, as it applies directly only to those wants that could have been satisfied, but were left unattended because of their lack in intensity. But this group of wants is not homogeneous and was not arbitrarily selected with an eye to the conclusion. The limitation is caused by the deficiency of certain raw materials for nonmilitary purposes, and has no relation with the particular nature of the wants of the consumer. There is no reason for supposing that the structure of these unsatisfied wants is different from that of any other wants. If the want for carrots decreases with increasing satisfaction then we may assume that the same thing happens to the want for potatoes and meats, even though it was at times impossible to obtain these. If the want for toys that were on the market decreases with the increase of satisfaction, we may deem it certain that the want for toys that were not on the market also decreases with an increased satisfaction. If the want for ironless and steelless furniture follows the principle of diminishing utility, then also the want for furniture, the production of which demands iron and steel, is subject to it. Thus we can reason to a universally valid principle.

¹³) James W. Angell ("Consumers' Demand," *Quarterly Journal of Economics*, Vol. XXXVIII, 1924, p. 593 f.), clearly influenced by Knight, thinks it more "useful" to treat utilities as relatives only, as they are "simply the reverse side of want-intensities." But he can only mean "useful" for his own purpose, which is "to get at the effective sizes of wants." At any rate for the purposes of the theory of value it seems more useful to abstract from this particular relativity.

¹⁴) Raymond T. Bye, "Some Recent Developments in Economic Theory," in: *The Trend of Economics*, edited by Rexford G. Tugwell, New York, 1924, p. 277.

factors¹⁵⁾ and declares it to be universally valid because of those factors.

The principle of diminishing utility has wider application than is suggested by the ordinary consumption of drinks or food... The fact is that there is a limit to the number of units of a given good that a consumer can use advantageously or find any use for at all¹⁶⁾.

Again, the truth of such a remark can be "felt," but it remains a feeling, a conviction founded on personal experience, and without any scientific proof extended into a universal rule.

The many differences in the conception of utility do not seem to affect the exposition of this principle. The authors who define utility as an objective quality generally disregard their definition in order to describe the process in subjective terms¹⁷⁾. There is no difficulty for those who look on utility as a mere desire or subjective feeling. Those who accept the view of utility as a relation also find it easy to speak of diminishing utility since a relation is affected by a change in either of its two terms.

Because of the normative character of his utility concept, Fetter speaks of economic "value" which is ascribed to the object. "It is not inherent, it goes and comes, grows and wanes, according to the intensity of the desire"¹⁸⁾. Diminishing utility with him becomes

¹⁵⁾ William H. Kiekhofer, *Economic Principles, Problems, and Policies*, New York, 1936, p. 463.

¹⁶⁾ *Ibid.*, p. 605.

¹⁷⁾ E.g. Carver, *Distribution of Wealth*, p. 15: "If for any reason a given want declines in intensity, an article which helps to satisfy that want can be said to have less utility." See also, Seager, *Introduction*, p. 63. Cf., above, Chapter I, p. 9.

Roy E. Curtis, *op. cit.*, p. 172, calls the term diminishing utility "inappropriate" for the reason that utility is said of the object, but he then adds to the confusion by speaking of "diminishing value". Turner (*op. cit.*, p. 112) uses "diminishing desirability" but, unlike Fisher, distinguishes it from "utility" which remains objective and does not decrease. Knight-Smith (*op. cit.*, p. 334) substitute "desire" for utility, and speak of a "diminishing unit desire" thus avoiding a change in the supposedly objective quality. Commons also refuses to have his use-value diminish with an increase of supply, as this can cause no change in the physical qualities of the good. What diminishes is the "scarcity value". The logical consistency of these authors as well as the inconsistency of the others illustrate once more the superiority of the view which holds utility to be a relation: at one and the same time it gives the foundation for a subsequent value and price theory as well as for considerations of efficiency and problems of management.

¹⁸⁾ Fetter, *Economic Principles*, p. 19.

"diminishing gratification" ¹⁹⁾ and he may therefore be classified with the proponents of the subjective idea.

Deibler, who sees utility reflected from the consumer to the object, in turn describes the diminishing of utility as a reflective process, "as if the change had occurred in the good itself" ²⁰⁾. Again he does not explain how this reflection takes place and he leaves it up to the reader to attribute any scientific value to this "as if" procedure.

Eddie is one of the few writers who connect directly utility with money value. He thinks in terms not of quantities of goods but of "expenditure": "As more dollars are spent on a given commodity, the degree of utility yielded by any single dollar tends to diminish" ²¹⁾. This may seem less strange if one considers that marginal utility often is expressed in monetary values. Whatever is to be said of the merits of such an early introduction of the money factor, it is as justifiable or unjustifiable to express diminishing utility in money values as it is to do so with marginal utility. It is to be noted that he does not express the utility of a good in money using a monetary term to illustrate the decline, as is often done ²²⁾, but instead speaks of the diminishing utility of money itself. Reading Eddie one involuntarily thinks of John Bates Clark, where he would have said:

As more hours of labor are devoted to the making of a given commodity, the degree of utility yielded by any single hour of labor tends to diminish ²³⁾.

In the case of labor, it is easy to discern the idea of derived utility and we shall find the same to be true of money: it has only derived utility. Two reasons may be offered for conceiving diminishing utility in terms of expenditure. One may desire to make the description more realistic, or one may intend to develop a more continuous and less abruptly declining utility curve. But, as we shall see later, the traditional presentation is sufficiently realistic for its purpose, and besides the introduction of money at this point would involve us in a vicious circle. It would also make the argument less clear as the element of cost would veil the real issue, which is that utility dimin-

¹⁹⁾ *Ibid.*, p. 36.

²⁰⁾ Deibler, *op. cit.*, p. 213.

²¹⁾ Eddie, *op. cit.*, 3d ed., p. 319. Cf. Boulding, *op. cit.*, p. 644 f.

²²⁾ See Chapter V, Measuring Utility.

²³⁾ Cf. John Bates Clark, *The Distribution of Wealth*, New York, 1899, p. 383: "The gains that are due to the successive hours of labor diminish from the first onward, and the last product the man secures is the least useful of all."

ishes irrespective of cost merely because of the increase in supply. It is hard to see that diminishing utility viewed as a "diminishing response to successive repetitions of a given stimulus [is] a point too much emphasized in discussions of value" ²⁴). Such a view, if not unnecessarily complicated by psychological elaborations, is exactly what is needed if a suitable concept of marginal utility is to be developed from it. To view "each day's budget as a unit" ²⁵), has its merits in bringing about a prudent method of consumption, but would confuse matters beyond repair in the theory of value.

The desire to obtain a more continuous utility curve cannot be sufficient reason for overlooking these difficulties. Still, such a desire is entirely legitimate, since eventually the curve is to be used for the purpose of establishing a point of intersection with another curve. The greater the lack of continuity, the more indeterminate this point becomes. The extreme case is that of goods of which more than one unit is seldom wanted by any individual. It has even been said that the principle of diminishing utility does not apply to such purchases:

The demand curve for cook stoves, for example, slopes downward to the right, but not because a family will buy a second and third stove only at a lower price than would be paid for one ²⁶).

Yet even in these cases the principle holds, for the utility of a second or third stove has decreased so much that no price however low is able to excite a renewed demand. But in his attempt to eliminate the idea of diminishing utility from the system, Hayes stressed with success an aspect of the principle which is important for its better understanding and insight. We should not stare ourselves blind on one single and determined want since the utility of one single want often decreases with leaps and bounds. We can establish more continuity in the utility curve if we consider more than one want provided it can be satisfied by one determined kind of good. An illustration of this continuity may be found in the example of the pails of water where one good, water, is wanted to satisfy different desires ²⁷).

Is it correct to apply the terminology of diminishing utility to

²⁴) Arthur E. Monroe, *Value and Income*, Cambridge, 1931, p. 18.

²⁵) As Monroe advocates, *Ibid.*

²⁶) H. Gordon Hayes, *Our Economic System*, Vol. I, New York, 1928, p. 319.

²⁷) For other examples, see Watkins, *op. cit.*, p. 3.

such cases? Hayes is of the opinion that this is not allowed and speaks of a desire for variation and differentiation as the cause of the negative slope of the demand curve. Dickinson accepts both factors as contributing causes, but insists on treating them as two different principles:

Expositions of value usually... ascribe declining demand chiefly to diminishing utility. In our opinion, too much credit is thus given to the diminishing utility principle in its simplest form, and not enough to the technical facts of different uses of any commodity... Of course... diminishing utility operates throughout the whole range, but that there are several wants of different urgency, any of which can be satisfied by the same commodity, is a tremendously important factor in demand, which, in an exact analysis, should not be lumped together as "diminishing utility"²⁸).

For the theory, however, this is not sufficiently important; for it changes nothing in the status of the principle of diminishing utility nor in the more specific utility relation. The downward sloping curve of the utility of water shows no new or different characteristics when traced from a first unit used as drink, via a second unit used for cleansing purposes, and back to a third unit used again as drink, than when it follows one continuous line without shifting from one want to another. For the psychological analysis it will probably be of much more importance to enter into this distinction more deeply and to outline the differences more sharply. But there is no reason why economic theory cannot combine the two aspects into one principle of diminishing utility; for the economist, then, "the law of variety [is] ... a corollary of the law of diminishing utility"²⁹).

²⁸) Dickinson, *Economic Motives*, p. 241 f.

²⁹) Seager, *Introduction to Economics*, p. 67.

CHAPTER III

HEDONISM

One of the greatest obstacles in the development of the subjective value doctrine was contained in the apparent necessity of approaching the utility concept from a psychological point of view. The entire system was for a long period linked up tightly with the ideas of the ethical-psychological theory of Bentham¹⁾ which never enjoyed a large following, and certainly in the beginning of the twentieth century was practically obsolete. It is quite understandable that the majority of economists did not like the idea at all of connecting the fate of their science with that of a tottering psychological system which they themselves could not even influence. Moreover, such an association would mean that as soon as a new system in psychology arose and obtained a certain number of adherents, a new economic theory would have to be invented.

Veblen has been of great service to economics with his merciless criticism of outdated theses and methods²⁾, but his positive contribution could find no approval as it was equally objectionable by reason of its evolutionary leanings. About 1920 the attacks from this side became so violent that in some circles a real utility phobia developed. The use of the very word "utility" was avoided and to be called a "utilitarian" seemed to some a disgrace. The main reason why orthodox economics held its own lies with the opposition which aimed solely at destruction without being able to make any positive theoretical contribution. Nothing was offered to take the place of the old theory. The defects of the existing theory were obvious but it seemed ever so much better than nothing at all. Instead the old school saw its way to bring about gradually an internal

¹⁾ Haney, *History of Economic Thought*, 3d ed., p. 623: "The philosophy which underlies the economics of the Austrian School is highly individualistic, and more particularly it is that phase of utilitarianism that is known as hedonism."

²⁾ Thorstein Veblen, *The Place of Science in Modern Civilization and Other Essays*, New York, 1929, especially "The Limitations of Marginal Utility," (Reprint from *Journal of Political Economy*, Vol. XVII, 1909).

renewal which conserved the core of the old doctrine but without making it dependent on outlived objectionable methods.

Even before the turn of the twentieth century Marshall had tried to free himself from Bentham's influence and to eliminate from Jevons' system the psychology of pain and pleasure.

Not pleasures as psychological reactions but factual demands were what mattered to Marshall. Therefore, while he took over the apparatus and the main conclusions of the Jevonsian system, he discarded as something which was outside economics the psychological ideas which lay behind them³⁾.

Whether Marshall succeeded in this attempt is subject to doubt. It is not enough to put more stress on a new element and to ignore or at least neglect the psychological problem as less urgent and less important; the concepts themselves have to be reconstructed in order to exclude formally, even implicitly, any reference to a certain psychological system, which cannot be accomplished by merely remarking that the psychological problems are outside the field of economic theory⁴⁾.

The American authors who in the main borrowed their ideas from Marshall were unable to conceal all the psychological implications and soon returned to the psychology of utilitarianism, so much so that as a group they have been frequently labelled with the name of the "Psychological School"⁵⁾.

In the United States a few early attempts at emancipation may be noted. Irving Fisher's resembles Marshall's in this that he too avoids becoming involved in the pain-and-pleasure controversy without offering any substitute in the line of motivation.

We have avoided expressly the statement that subjective income consists of pleasure, or as pleasure minus pain. These terms have been too loosely used by econo-

³⁾ Edmund Whittaker, *A History of Economic Ideas*, New York, 1940, p. 453.

⁴⁾ Cf. Haney, *History of Economic Thought*, 3d ed., p. 649: "Traces of hedonism and reliance upon rational individual choices are not lacking in Marshall's thought." *Ibid.*, p. 650.

⁵⁾ E.g., Henry George, *The Science of Political Economy* (1897), ed. 1932, London, p. 173; John R. Commons, "Materialistic, Psychological, Institutional Economics," in: *Economic Essays in Honour of Gustav Cassel*, Edited by Josiah C. Stamp, et al., London, 1933, p. 90; Haney, *History of Economic Thought*, 3d ed., p. 586; Fetter, "Amerika," in: *Die Wirtschaftstheorie der Gegenwart*, Vol. I, Vienna, 1927, p. 38; Maurice Roche-Agussol, *La Psychologie économique chez les Anglo-Américains*, Paris, 1918, p. 73.

mists, and such use has involved them in unnecessary controversy with psychologists. It is better to avoid such disputes, and content ourselves with the simple statement that subjective events which are desirable are services, and those which are undesirable are dis-services. This statement... does not commit us to any psychological theory of pleasure and pain⁶).

Such an attitude cannot be satisfactory, the less so because Fisher admits a purely subjective concept of utility which he calls "desirability". To put it in the words of Veblen, such "differences and suggested innovations do not touch the substance of the ancient postulate"⁷). The only consistent attitude in Fisher's case seems to be to do away with the utility concept entirely and to concentrate on a theory of price alone, as Davenport did.

The second attempt consists in an adaptation of this theory to the more modern ideas in psychology. The utility concept remains but receives a more dynamic content in accordance with evolutionary tendencies and behavioristic views⁸). But the economists refused to consider this attempt seriously. For in this manner economics remained dependent on and determined by the position of psychological science. It meant a change in the underlying psychology, not freedom from all psychology. Who could guarantee that in such a condition a completely new revision would not become necessary within a relatively short time?

Fetter tried to build his system on the basis of a voluntaristic psychology accepting simple choice for his basic concept. But no one followed him in this and he himself soon came entirely under the influence of his normative view of utility and its possible applications to welfare economics.

Carver and even more explicitly Dickinson openly defended the hedonistic interpretation.

There has been good reason... for the economist's conception of utility as a wholly subjective affair pretty well synonymous with pleasure... The theory of an individual calculus of utilities has been immensely serviceable toward explaining the facts of value⁹).

⁶) Fisher, *The Nature of Capital and Income*, p. 168.

⁷) Veblen, *The Instinct of Workmanship and the State of the Industrial Arts*, New York, 1914, p. 46, Note 1.

⁸) Veblen's influence is manifest; cf. Theo Suranyi-Unger, *Economics in the Twentieth Century*, New York, 1931, p. 217.

⁹) Dickinson, *Economic Motives*, p. 230. Cf. also: "The Relations of Recent

The main obstacle was concealed in the word "utility" which apparently everyone wanted to retain, despite repeated endeavors of Fisher and others to introduce a new term. Historically it was so tied up with the school of Bentham and in economics it had been used for such a long time in that spirit that it required a logical genius like Davenport to free himself from all the implications:

There is no sufficient reason for quarreling with the term utility either on the ground of its distinct hedonistic associations or upon the basis of some other word better serving the needs of the case... Utility does not of necessity mean "importance for happiness" or imply any sort of "pain or pleasure calculus"¹⁰).

And in a later publication he wrote :

In the notion of utility there is no necessary implication of any hedonistic theory of desire. ... The utility of an object need mean nothing more, and should be taken to mean nothing more, than one way of expressing the simple fact that the object is desired¹¹).

But, about 1910, Davenport could find hardly anyone to agree with him; he was then the only economist of name who saw in utility a relation and not a quality¹²). A utility doctrine built on the idea of a relation could be kept free from all the psychological complications which entangled the others and thus remain immune against all criticism and pressure of modern psychology¹³).

Psychological Developments to Economic Theory," *Quarterly Journal of Economics*, Vol. XXXIII, 1919, p. 377; "Quantitative Methods in Psychological Economics," *American Economic Review*, Vol. XIV, 1924, p. 117; Carver, "The Behavioristic Man," *Quarterly Journal of Economics*, Vol. XXXIII, 1919, p. 195.

¹⁰) Italics supplied. This view of Davenport dates back at least as far as 1902 when he wrote: "It may be safely asserted that there is not one single essential doctrine in the system that might not, without substantial impairment or change of economic bearing, be stripped of its psychological or ethical implications." ("Proposed Modifications in the Austrian Theory and Terminology," *Quarterly Journal of Economics*, Vol. XVI, 1902, p. 357). The quotation in the text also appeared in this article (p. 361), and was later incorporated in *Value and Distribution*, p. 310 f.

¹¹) Davenport, *Economics of Enterprise*, p. 99.

¹²) It is not certain that he was influenced by Wicksteed, who, in England, had substituted "economic relationship" in the place of "economic motive." Cf. Philip H. Wicksteed, *The Common Sense of Political Economy* (1910), See London edition, 1935, Vol. I, p. 4.

¹³) Cf. Eveline M. Burns, "Institutionalism and Orthodox Economics," *American Economic Review*, Vol. XXI, 1931, p. 82, in which she refers to Wicksteed but not to Davenport and continues: "Although the rise of institutionalism was

Gradually the use of such words as "pleasure," "gratification," and even "satisfaction" became less frequent and a tendency developed to avoid all implication of the pain-and-pleasure philosophy. This in itself admitted a broader view on the system of wants because it made room for other factors not necessarily associated with pleasure and pain; desire in general became a sufficient basis for utility regardless of any accompanying pleasure. Other motives, like fear, the sense of duty, love, patriotism, and the like, may be in back of the desire¹⁴⁾. Thus the link with utilitarianism was broken even though the concept of utility remained.

Economists generally have been coming to recognize that the psychology of the subject is properly behavioristic; that an economist need not be a hedonist..., and that he does not need even to consider the issue between rival psychologies of choice¹⁵⁾.

Moreover, the individual's wants are no longer conceived in an extremely individualistic or rationalistic way. Allowance is made for institutional facts and for social motivation.

The individual's desires depend partly upon impersonal valuations which are affected by participation with others in social valuation processes. Customs and moral judgments affect him¹⁶⁾.

When Stigler asserts that

Only in very recent years has there begun a real movement to abandon the utilitarian viewpoint for the more colorless but less vulnerable theory of substitution,¹⁷⁾

he is referring to the approach by means of indifference curves. But the modern utility concept is just as colorless as that of sub-

considerably influenced by the growing dissatisfaction of the supposed hedonistic basis of neo-classical economics, we are coming to see that the rejection of this particular view of psychology does not necessarily involve the adoption of any completely new method of approach to economics."

¹⁴⁾ Fisher, "A Statistical Method for Measuring 'Marginal Utility'" in: *Economic Essays in Honor of John Bates Clark*, p. 157 Note. Cf. Roche-Agussol, *La Psychologie économique chez les Anglo-Américains*, pp. 78 ff.; Gaétan Pirou, *Les Nouveaux Courants de la Théorie Économique aux États Unis*, Vol. II, Paris, 1939, pp. 42 ff.

¹⁵⁾ Knight, *Risk, Uncertainty, and Profit*, p. 64, Note 1.

¹⁶⁾ Haney, *History of Economic Thought*, 3d ed., p. 631. Cf. Benjamin M. Anderson, *Social Value*, Boston, 1911, *passim*.

¹⁷⁾ George J. Stigler, *Production and Distribution Theories*, New York, 1941, p. 2.

stitution, and not a bit more vulnerable. Both, taken by themselves, can have an hedonistic meaning; in the early days of the theory, utility did have that meaning, while the idea of substitution not being in general use, remained free from that taint. But nothing compels us to retain the exclusive association between utility and the pleasure-pain psychology, since we can change our technical terminology with the avowed purpose of giving utility a "neutral" meaning, just as neutral and colorless as that of any concept used in the indifference curve approach.

Therefore even though this process of casting off psychological hedonism is not completed, one can no longer accuse modern economic theory of receiving its inspiration from Bentham: "The modern utility theorist disavows faith in the hedonistic psychology"¹⁸). By 1935 Homan felt justified in writing:

Economic theory... has largely cast off the agency, if not the guiding principle of utilitarian ethics... The hedonistic view of human nature has given way to varying modifications or complete denial... Such adjustments as these many economists have found it possible to make while remaining true to the central problem, the value problem, the central method, the method of logical deduction, and the central scientific preoccupation, the mechanical analogy of the science¹⁹).

That this process is still going on can be shown by quoting some modern writers who continue to associate utility with hedonism, but they are neither numerous nor influential.

Choice is based on the utility possessed by goods and services. But, utility is determined by a vast series of factors that arouse in the consumer sensations of pleasure or pain and the concomitant reactions of desire and aversion²⁰).

Economics rests squarely on a cosmopolitan utilitarianism and there is no way to get it off without a breach of all the concepts that are the very essence of our discipline. Every individual is the judge of what is useful to him, establishes his own ends, assesses his own costs, and, provided no private individual or group in any way

¹⁸) Viner, *op. cit.*, p. 648; cf. Fetter, "Amerika," in: *Die Wirtschaftstheorie der Gegenwart*, p. 46 f.

¹⁹) Paul T. Homan, "The Impasse in Economic Theory," *Journal of Political Economy*, Vol. XLIII, 1935, p. 796.

²⁰) Charles S. Wyand, *The Economics of Consumption*, New York, 1937, p. 134.

coerces others, it may be presumed that every man will maximize the spread between his pleasure and his pain ²¹⁾).

Some authors, at times, betray a fear to be held for a hedonist just because they use the word "utility" or maintain the idea.

The word satisfaction and the word utility are used throughout with no hedonistic implication and no intent to resolve any psychological dispute. The words may be applied to a process or to a result, an effort or an attainment, or to both, as they appear in everyday language ²²⁾).

In other words, the author is afraid and gives us the liberty to take whichever meaning we wish provided we do not interpret her text in a hedonistic manner. What she herself intends to express with those words we must guess. The reference to the meaning which everyday language gives to those words should allow for at least a moderate hedonistic interpretation. Pain and pleasure may not be the basis of all motivation, still they cannot be entirely neglected.

Others, at times, seem to go to extremes to keep the word "utility" out of the text ²³⁾. Still others retain the contact with psychology, but give to the economic motivation a much wider interpretation than the pain-and-pleasure categories can afford. In an analogy with the natural sciences, they take their refuge in the concept of a "power" and try to reconcile this notion even with their subjective interpretation of utility.

The present work is not to assume that "utility" or "marginal utility" are pleasurable sensations or gratification "feelings," but that they are "motivating forces," or phases of human motivation ²⁴⁾).

What remains of the marginal utility theory after such a "purge" as is advocated among others by Davenport? The analysis of the so-called "economic motivation" becomes superfluous for the economic system and can better be relinquished to the psychologist.

²¹⁾ Frank D. Graham in: Discussion on Political Science, Political Economy, and Values, *American Economic Review*, Vol. XXXIV, 1944, Suppl., p. 55.

²²⁾ Elizabeth E. Hoyt, *Consumption in Our Society*, New York, 1938, Preface, p. V, Note. Similarly, Henry Schultz, *The Theory and Measurement of Demand*, Chicago, 1938, p. 12.

²³⁾ E.g. Hayes, *op. cit.*; Archibald M. McIsaac and James G. Smith, *Introduction to Economic Analysis*, Boston, 1937.

²⁴⁾ Haney, *Value and Distribution*, p. 64.

Those who are interested in advertising and methods of propaganda must not omit to study their findings in detail but they do not come under the heading of economic theory as such and should rather be treated as a part of the psychometry or differential psychology.

It has been said that the rest of the marginal utility theory without benefit of the basis of economic motivation cannot stand on its own feet.

Those who take this position . . . assert that economics is concerned only with the fact of choice between goods or between alternate activities, and not with the basis of choice. But if this be true, all talk of "gratification," "psychic income," or the "balancing of utility" must be thrown out of economic discussion — whereupon the whole literature of marginal utility reduces itself to a meaningless jargon²⁵⁾.

It cannot be denied that in many cases certain words have been used without sufficient attention to the implications of the terminology. "Gratification," for example, brings us back to feelings of pain and pleasure. Yet with a little goodwill one can give it a wider interpretation. "Provision" certainly deserves the preference as it takes a completely neutral position as against all pain-or-pleasure complication, and corresponds to all needs, wants, and desires in general. "Psychic income" mainly used by Fisher and Fetter²⁶⁾ cannot be discarded, even though the term may be an unhappy one. Without entering into any profound psychological speculations, we can expect from everyday experience that man not only needs food, clothing, and shelter, but that he also desires health, love, social esteem, power, and the like. True, a distinction between so-called economic and non-economic wants should not be made, at least for the purposes of the theory of value; all wants are economic if they bring about or modify the demand for goods²⁷⁾. But for an understanding

²⁵⁾ E. H. Downey, "The Futility of Marginal Utility," *Journal of Political Economy*, Vol. XVIII, 1910, p. 259.

²⁶⁾ Fisher, *The Nature of Capital and Income*, pp. 166 ff.; Fetter, *Economic Principles*, p. 27. Also: Taussig, *op. cit.*, 4th ed., p. 120; Davenport, *Outlines of Economic Theory*, p. 136.

²⁷⁾ F. H. Knight, "Ethics and the Economic Interpretation," *Quarterly Journal of Economics*, Vol. XXXVI, 1922, p. 472: "All ends and motives are economic in that they require the use of objective resources in their realization." McIsaac-Smith, *op. cit.*, p. 18: "From the standpoint of economic analysis the term 'desire' signifies any human aim, the attainment of which requires economic activity." The great defender of this position as logically necessary is Wicksteed (*op. cit.*,

of the distribution of income, and to explain many inequalities in income, reference to such "psychic" factors cannot be avoided²⁸). Downey finds an unexpected ally in the person of Dickinson, who objects to this concentration on the subjective aspect²⁹). His reasons, however, arise from the impossibility of measuring such psychic entities. But this does not constitute a sufficient motive for excluding them³⁰).

What concerns the "balancing of utilities", modern economic theory no longer interprets this as a purely rational and utilitarian process as will be explained in greater detail in the discussion of the rationality postulate³¹).

Subsequent development of the utility theory has shown conclusively that more than a "meaningless jargon" remains after the purge. The utility theory can squarely be founded on the experimental facts of demand for goods and subjective valuation and has no need of any inquiries into economic motivation for its solidity. Those facts are given in the experience of the market or are closely connected with it; the utility concept endeavors to give us a deeper insight in both. Let psychology try to examine the psychological value-phenomenon by means of an analysis of motivation; economics examines the economic value-phenomenon by considering goods in as far as they are objects of human desires.

p. 4); cf. also Joseph Schumpeter, "On the Concept of Social Value," *Quarterly Journal of Economics*, Vol. XXIII, 1909, p. 216.

²⁸) Monroe, *op. cit.*, p. 11.

²⁹) Dickinson, *Economic Motives*, p. 237.

³⁰) See Chapter V.

³¹) Chapter VIII.

CHAPTER IV

MARGINAL UTILITY

Evaluating consists in making comparisons. In order to obtain the concept of value it is therefore necessary to have two magnitudes which can be compared, and which if viewed from a certain angle can be expressed in each other or at least in a more or less arbitrarily determined unit. Philosophically speaking, utility belongs to the category of value, and this is shown in the history of economic thought by the frequently recurring expressions "value in use," "use value"¹). But if we were to use the term value in economics for everything that possesses value or is valuable in the philosophical sense, we would cause such a confusion that the task of developing an economic system and the technical terminology pertaining to it would become extremely intricate. Preferably, therefore, the value concept should be limited and be given a much narrower meaning than is done in philosophy²).

Value emerges from the comparison of utilities and is therefore a relation between relations. In Chapter II we touched upon such a relation when we drew the descending line of utility through the different wants which are satisfied by one certain good. There the

¹) Hence "valuation" at times may only mean an estimate of utility. Whenever it is used in this sense in this study it will be apparent from the context.

²) Dickinson, *Economic Motives*, p. 229: "The term *utility*... is well established in English economic writing for the simple quality of 'being wanted by some subject,' whereas value in whatever usage implies some sort of comparison or measuring or relation among wants." Lindley M. Fraser, *Economic Thought and Language*, London, 1937, p. 60, practically identifies utility with "esteem value": "Use value is always known to economists by a special word (as a rule, the word 'utility') — though the reason in this case is not that they are unaware that 'value' may mean usefulness, but that they are too well aware of this, and of the confusions to which it is liable to give rise." See also *Ibid.*, p. 84. Among the American authors Fetter alone uses "value" for utility because of his different, normative, view of the utility concept. (*Economic Principles*, p. 231.) The confusion necessarily resulting from such a usage has been pointed out by Davenport in his review of Fetter's book (*Journal of Political Economy*, Vol. XXIV, 1916, p. 325). To give one instance, on page 19 Fetter maintains that value logically follows choice, but on the same page he shows how choice is influenced by value.

phenomenon of value did not arise because we were speaking of only one good, and considered the satisfaction of wants as a successive process. It led us to the concept of diminishing utility. To arrive at the concept of value we must compare at least two goods³⁾, each of these subject to the principle of diminishing utility.

To do this, it is necessary to determine somewhere on the descending curves a point which expresses the utility of a certain good in certain circumstances at a certain moment, a strategical point which lies on the margin between the utility of quantities greater and smaller than we wish to consider at this moment. Hence the name "marginal utility".

Marginal utility, therefore, is utility and not value⁴⁾; it is that which is compared, not the result of the comparison. Essentially a relative magnitude because it is "utility," it is at the same time an "absolute" magnitude because it constitutes the basis of a new relation. The mathematical expression

$$\frac{U_A}{U_B} = \frac{a : a^1}{b : b^1} = K$$

portrays this complex of relations, if U_A and U_B represent the marginal utility respectively of the goods A and B, and a and b the properties which form the basis of the utility of A and B in connection with the existing wants a^1 and b^1 . K is then a factor expressive of value, essentially another relation, which can in its turn be compared with other similar relations⁵⁾.

Two remarks must here be made. First, marginal utility is an individual category. Whether there exists such a concept as social utility with the corresponding idea of social marginal utility will be discussed in Chapter IX. In the theory of value the individual concept is required as a certain determined point in the scale of diminishing individual utility. It involves no social elements, and to attribute any social meaning to the concept would be misleading and moreover would make the system entirely futile⁶⁾.

³⁾ Haney, *Value and Distribution*, p. 171.

⁴⁾ Haney, "The Social Point of View in Economics, II," *Quarterly Journal of Economics*, Vol. XXVIII, 1914, p. 296.

⁵⁾ The two relations $U_A : U_B$ and $a : a^1$ differ in kind. $U_A : U_B$ represents a ratio or proportion, $a : a^1$ a proportionality. The former is quantitative, the latter qualitative.

⁶⁾ Davenport, *Value and Distribution*, p. 571: "Marginal utility — a purely individual category..."

Secondly, marginal utility relates to one good alone. It is a certain utility of that good, that utility which subsequently will be compared with the marginal utility of another good. The problem which occupies us here concerns solely the determination of the marginal point at which we interrupt the descent of the utility curve; out of all the points of the utility curve of a good, we try to designate that particular utility which for particular reasons we consider effective or "final" for the further development of the system ⁷⁾.

Marginal utility is a relatively simple tendency not reflective, and not involving choices among different objects... It is the importance to [a person] of the good — his motivation with reference to it — considered alone, in view of the quantity available ⁸⁾.

How can we designate this point at which the descending line is to be interrupted? Only by invoking a limitation in the quantity of the good. Without limitation the curve continues in a descending line and eventually reaches zero or may even go below zero ⁹⁾.

The concept of scarcity enters here but for the time being only in a vague manner. The quantity is not sufficient to bring about a declining utility to the zero point; only a limited possibility for the satisfaction of wants exists. Therefore marginal utility is the utility of the last unit of the limited quantity of a good ¹⁰⁾.

If the product is homogeneous and divisible in many units which can be substituted for one another, it makes no difference which unit is considered the last one. That seems to be the reason for many authors not mentioning this last unit and using the expressions "any one unit", "any single unit", instead ¹¹⁾.

⁷⁾ Marginal utility, final utility, specific utility, and effective utility are all terms which in the early literature were used indiscriminately. Fisher speaks, of course, of marginal desirability. Marginal utility was the term that received universal acceptance; fortunately the word "marginal" makes a technical impression.

⁸⁾ Haney, *Value and Distribution*, p. 170. When Seager contends that "in all calculation of value the determination of marginal utility is comparative rather than absolute" (*Introduction to Economics*, p. 83), he confuses marginal utility with subjective value.

⁹⁾ Davenport, *Economics of Enterprise*, p. 103: "Utility may exist without scarcity, but marginal utility cannot." Cf. Bye, "The Nature and Fundamental Elements of Cost," *Quarterly Journal of Economics*, Vol. XLI, Nov., 1926, p. 35.

¹⁰⁾ Charles J. Bullock, *Elements of Economics*, New York, 1905, p. 14; Ely, *Outlines*, 6th ed., p. 152; Seligman, *Principles of Economics*, p. 176.

¹¹⁾ Carver, *Principles of Political Economy*, p. 279; Ely, *Outlines*, 6th ed.,

There is no reason for objecting to this procedure provided one does not overlook the necessity of a successive process for the development of the argument in which the strategical position of the last unit should be sharply underlined.

Marginal utility can be conceived of definitely only as it is possible to think of a series of units, and a process of variable degrees of utility according to the principle of diminishing utility¹²⁾).

The possibility of substitution implies only that it is indifferent which unit one considers to be the last one, but it does not imply that equal utility must be ascribed to each unit. For the diversity of wants and the difference in intensity necessarily bring about a different utility for the various units¹³⁾).

To introduce and illustrate the concept of marginal utility, it is

p. 152; Kiekhofer, *op. cit.*, p. 465; Fairchild, *et al.*, *Elementary Economics*, Vol. 1, 2d ed., 1930, p. 240; Haney, *Value and Distribution*, p. 232.

¹²⁾ Haney, *Ibid.*

¹³⁾ Admittedly there is an equality of appreciation of these units, as will be discussed presently (p. 45 f.). In the mean time a "non-sequitur" must apply to the following argument because it overlooks this difference between the last unit and "any one unit":

Suppose that a hungry man is offered the opportunity to buy three sandwiches and the seller desires to dispose of all three in one sale. To the hungry customer one sandwich may be so important in satisfying his hunger that he may be willing to pay \$1 for it. For the second sandwich, however, he will not be willing to pay as much for the reason that, after eating the first, his hunger will not be nearly so strong and therefore the utility will be much less. Let us assume that he will be willing to pay 25 cents for it. The strength of desire for the third sandwich would naturally be still less than for the second. So that the seller might not be able to get more than 15 cents for it.

Under this theoretical presentation it is assumed that all three sandwiches must be sold at one time to one person. Under this supposition it is the utility of the third or last sandwich which makes the price at which the sale will be made since the third or marginal unit is in no way different in any objective sense from the other two and since all three must be sold, the buyer is able to secure all three at the price of the marginal unit, namely, 15 cents each. (Paul H. Nystrom, *Economic Principles of Consumption*, New York, 1929, p. 45.)

The third or marginal unit differs from the other two in utility. Nothing forces the seller in this case to accept one and the same price for each sandwich. He can look upon the three sandwiches together as one unit. The upper price limit is then \$1.40, the lower is determined by himself and his own desire for sandwiches, but not at all by the 15 cents.

sufficient to present an imaginary consumer who can dispose of a supply of a good which again in the imagination is arbitrarily limited, and to apply to this supply the marginal method. This consists in taking away one unit and measuring the difference in utility caused by it¹⁴). But in order to make the concept useful for the further analysis, the marginal unit must be determined more exactly. As we have seen this is done by introducing the concept of scarcity; but scarcity, not as a general phenomenon with its social implications: it must be seen as applying to the individual, on the same level as the concept of utility.

Apparently two roads may be followed: one can use either the postulate of choice or the postulate of cost. However, these two postulates differ only in their bearing on the logical structure of the theory. In reality they are identical¹⁵). The Austrian School stressed the necessity of choice and on it built its concept of cost; Marshall and the neo-classicists preferred the postulate of cost and on it founded the necessity of choice.

In the Austrian exposition diminishing utility comes to a standstill at the point at which the utility of another good exceeds the utility of the good in question. This causes the consumer to shift his attention to this second good and to relinquish the former as the less desirable good in the choice between the two want-satisfying means. Hence follows the Austrian concept of cost which defines the cost of a chosen good as the sacrificed utility of the good that is relinquished.

Considerations like these gave rise to the opinion that it was possible to express cost in terms of utility and reduce the explanation of value to the one idea of utility. That opinion, however, no longer exists. The argument rests squarely on the necessity of choice which is postulated outright. Why cannot the consumer take both goods? No appeal to the utility factor can explain the need for sacrificing the second commodity, and thus lead to the necessity of choice. It is not caused by utility but by scarcity.

The American authors all agree with Marshall and view the cost of a good at this stage of the analysis as a separate factor

¹⁴) See, e.g. Kiekhofer, *op. cit.*, p. 465; Fairchild, *et al.*, *Elementary Economics*, Vol. I, 3d ed., p. 140; Boulding, *op. cit.*, p. 638; Haney, *Value and Distribution*, p. 171.

¹⁵) Commons, *Institutional Economics*, p. 179, describes them as "two versions of marginal utility".

independent of utility. Many of them avoid using the term "cost" and prefer "disutility" in order to make clear that they are speaking not of money cost, but of an individual category¹⁶). For money costs are prices which should not be admitted as part of the argument until the concept of price is established. The purpose of the whole system is to prepare the field for a theory of price and it would constitute a vicious circle to use the price concept in this process¹⁷).

The acceptance of cost as an independent factor does not preclude the possibility of conceiving production outlays as "opportunity costs." These outlays are in the nature of monetary expenses and represent values. Cost as an individual category differs from them in the same manner as utility differs from value. It may be called "real" or "physical" cost, if the suggestion can be avoided that it lies directly back of "money" cost¹⁸). "Disutility" seems to be the most satisfactory term.

The introduction of disutility as a new element simplifies the argumentation; instead of following the Austrian thought and immediately associating the marginal utility of a good with that of all other goods, and thus causing the idea of marginal utility to become vague even before it has been sharply defined, the neo-classicists achieve a definite magnitude which can be considered absolutely and form the basis for subsequent speculation.

At this point it is necessary to postulate that utility and disutility can be measured with one and the same measure, or at least expressed in one and the same factor. Essentially they are but two poles: desirability and undesirability, the positive and negative relations between a good and a person desiring it. Utility connotes the attraction exerted by the good in virtue of its want-satisfying qualities; disutility refers to an aversion caused by the conditions which must be fulfilled in order to acquire control over it.

Parallel to the law of diminishing utility a similar principle of

¹⁶) Suranyi-Unger, *op. cit.*, p. 254 f. Fetter again is an exception; because of his normative interpretation of utility he uses the terms "value" and "cost." (*The Principles of Economics*, New York, 1904, p. 64.)

¹⁷) Cf. Bye, "The Nature and Fundamental Elements of Cost," *Quarterly Journal of Economics*, Vol. XLI, Nov., 1926, p. 30. For the same reason it is incorrect to appeal to limitations of income in order to explain the necessity of choice. Income, too, is a price and has to be explained.

¹⁸) The assumptions required for establishing a direct correlation between "real" and "money" costs are extremely unrealistic. See Stigler, *Production and Distribution Theories*, p. 65 f.

increasing disutility is drawn up, based on an augmentation of the aversion of the sacrifice needed to procure increasing quantities of a good. With greater quantities utility decreases but disutility is intensified. It is very important at this point to watch the terminology of the authors with great care. Most authors speak and continue to speak of marginal utility without relating it to sacrifice or cost. Each phase in the decrease of utility is then called marginal utility; it is sufficient to stop at any point in the imagination and make this point the object of the analysis in order to have a margin. When disutility enters into the discussion just another point of marginal utility arises and this is the marginal utility which will be used in the subsequent development of the price theory. Some do give to the marginal utility at this definite point another name in order to distinguish it from the other phases. They call it "subjective worth". Subjective worth is utility, not value; it lies on the margin of that quantity which demands a sacrifice, the disutility of which equals the marginal utility.

Thus Davenport and, following him, Haney:

Marginal utility — a purely individual category and an absolute magnitude — is a step toward explaining subjective worth — a purely subjective and individual fact and an absolute feeling magnitude, the cost aspect of marginal utility¹⁹).

When the positive desire is attended by negative desires or aversions, we find "costs" tending to counteract its motivating force. The balancing of positive and negative desires results in "subjective worth"²⁰).

Marginal utility thus becomes only an intermediary concept used mainly for purposes of exposition. Haney's thought may be traced from a remark which he made in a previous work. Discussing Walras he says:

In some respects Walras' *rareté* appears to be a truer concept than the common notion of marginal utility; for,

¹⁹) Davenport, *Value and Distribution*, p. 571. Some ten years earlier, he had written, however: "A given case is marginal simply because the utility gained and the utility sacrificed are approximately equal." (*Outlines of Economic Theory*, p. 45.) In *Economics of Enterprise* he drops "subjective worth" again and throughout speaks of "marginal utility."

²⁰) Haney, *Value and Distribution*, p. 171. See also *Ibid.*, p. 227, and Haney, "The Social Point of View in Economics, II," *Quarterly Journal of Economics*, Vol. XXVIII, 1914, p. 297.

in defining it as depending on supply and utility, he gives clear recognition to the fact that supply limitations are included and expressed in it²¹).

Subjective worth, then, is intended as the equivalent of Walras' rareté and gives clear recognition to the factual supply limitation, while marginal utility refers only to imagined restrictions. Haney is very consistent, therefore, when he remarks that "the so-called law of diminishing utility is in reality the law of diminishing marginal utility and it would be conducive to clarity so to call it"²²).

The other authors, however, continue to speak of marginal utility and do not use the term "subjective worth".

Marginal utility in this view is not related to sacrifice and can be greater or smaller than that sacrifice. The limitation of utility remains arbitrary as a result of the arbitrary limitation of quantities. The idea of an "available supply" maintains itself throughout this phase. Thus, in many cases the question is brought up whether marginal utility is determined by the last unit of the supply or rather by a new unit which is to be added to the assumed supply²³). This can only cause a problem if one forgets that marginal utility in this sense depends solely on our arbitrary limitation and has nothing to do with the balancing of utility and disutility. It is a pseudo-problem and has no bearing on the one phase of marginal utility which is important and alone relevant to the analysis.

In criticizing the Austrians, Macvane brings out very forcefully the position of marginal utility in the chain of concepts:

The function of marginal utility, as distinguished from simple utility, is rather to set a quantitative limit to the demand at a given value than to determine a particular value itself²⁴).

²¹) *History of Economic Thought*, 3d ed., p. 600.

²²) *Value and Distribution*, p. 234.

²³) Ely especially seems to attach much importance to this problem and changed his position in the course of several editions (*Outlines*, 2d ed., 1908, p. 108; 4th ed., 1923, p. 129; 5th ed., 1930, p. 161 f.; 6th ed., 1937, p. 152 f.) Others treating this question are Carver, *Principles of Political Economy*, p. 279; Kiekhofer, *op. cit.*, p. 465; Fairchild, *et al.*; *Elementary Economics*, Vol. I, 2d ed., p. 240; Boulding, *op. cit.*, p. 638. Henry R. Mussey and Elizabeth Donnan, *Economic Principles and Modern Practice*, Boston, 1942, p. 223, rightly use both units to illustrate the marginal utility concept and see no problem in the question.

²⁴) S. M. Macvane, "Marginal Utility and Value," *Quarterly Journal of Economics*, Vol. VII, 1893, p. 280. Exception might be taken to the use of the word "value," but the context allows an interpretation in the sense of "sacrifice" since

Such a limit is set only at one point, and it is, therefore, to be recommended either to introduce the term "subjective worth", or to reserve "marginal utility" for the utility at that one point which is decisive for the analysis: the point of intersection of the curve of diminishing utility with that of increasing sacrifice. If the use of the term "marginal utility" can be avoided in other cases, the preceding pseudo-problem automatically disappears and it becomes equally superfluous to operate with "subjective worth" ²⁵⁾. This point is all the more important because other languages do not know of the distinction between "worth" and "value"; a still greater confusion would result from the added difficulty of separating those terms.

By using marginal utility in a general sense, the impression has often been made that in the marginal utility theory value originates at the point of intersection of the utility curve and the disutility curve. Thus Hoxie, in his review of Fetter's textbook, says that "the subjective value in the first instance is determined by marginal utility", and this is nothing novel, but represents a "familiar conclusion of the Austrians" ²⁶⁾. The claim that only utility and scarcity are needed to produce value ²⁷⁾ tends to make the same impression. Utility and scarcity alone suffice to establish the concept of marginal utility, which still belongs to the utility category. But its value lies beyond that category.

To prevent any misconception of this kind, Davenport made the distinction between "value" and "worth" and created his notion of "subjective worth." Subjective worth is and remains utility; it forms the basis for a valuation, but is not value itself.

The vague use of the term "marginal utility" has been the occasion of still other misunderstandings. Davenport says somewhere in a note that there exists much confusion in the textbooks between utility and marginal utility. As an example, he refers to Selig-

it refers us (p. 281) to "the terms on which the producer of each article may obtain it from nature."

²⁵⁾ The term "diminishing incremental utility" has been used to indicate the successive stages prior to the margin (Knight, "Realism and Relevance in the Theory of Demand," *Journal of Political Economy*, Vol. LII, 1944, p. 302).

²⁶⁾ Robert F. Hoxie, "Fetter's Theory of Value," *Quarterly Journal of Economics*, Vol. XIX, 1905, p. 216. Cf. also Suranyi-Unger, *op. cit.*, p. 255: "In the course of their contrary motions, utility and sacrifice must meet somewhere, and it is at this meeting point that value arises."

²⁷⁾ E.g. Carver, *Distribution of Wealth*, p. 12.

man²⁸⁾. Though he even indicates the book and page, Seligman's textbook still was many times reprinted with only one change in this part of the theory, a substitution of the term "effective utility" for "marginal utility", and the addition of the following definition:

Effective utility is utility which is of any effect when we compare quantities of different goods²⁹⁾.

Unchanged was: "at any given time the utility of each apple is equal to that of the last and therefore to that of any other", when he analyzes marginal utility by referring to a case in which ten apples are acquired successively. Other sources of confusion on the same page are:

The marginal (later editions: "effective") utility of a stock is the marginal utility of the final unit times the number of units... The marginal (effective) utility of four apples is four times the marginal utility of the fourth...³⁰⁾.

No wonder that such vague statements in many cases caused a feeling of dissatisfaction with the marginal utility theory. Utility and marginal utility are not concepts which one should use without first defining them sharply. It is much better to avoid using them than to keep them vague. The confusion in the terminology has been one of the major obstacles in the development of the utility theory because too often it led to a confusion in concepts. Utility, marginal utility, subjective value, subjective exchange value, with many different modifications, have often been used indiscriminately, especially in the less outstanding textbooks³¹⁾.

The difference between the influence of considerations in terms of mere utility on the one hand and of marginal utility on the other

²⁸⁾ Davenport, *Value and Distribution*, p. 315 Note.

²⁹⁾ Seligman, *Principles of Economics*, 3d ed., 1907, p. 176; the first edition appeared in 1905.

³⁰⁾ *Ibid.* He also speaks of "a case of five apples, where the marginal utility of each..." etc. Taussig criticized Seligman for speaking of the "marginal utility of a stock of goods": "There is no such thing as 'total marginal utility'; the term 'marginal utility' is applicable only to the utility of the last unit." But Seligman contended that "without this conception, the whole theory of the equivalence of value and marginal utility falls to the ground." Their discussion appeared in the *Quarterly Journal of Economics*, Vol. XXI, Nov., 1906.

³¹⁾ Such as Floyd E. Armstrong, *et al.*, *The Economic Process*, Vol. I, Boston, 1935; Otho C. Ault and Ernest J. Eberling, *Principles and Problems of Economics*, New York, 1936.

cannot be better illustrated than with the example given by Patten despite the fact that it is taken from the dining room :

Let us picture the action of an individual at a free dinner, where all the dainties of the season were at his disposal. What articles of food would he choose first ? Evidently those which gave him the greatest pleasure. When his desire for these articles was satisfied or when their degree of utility to him was greatly reduced, he would consume other articles for which his appetite was not so strong. The final degree of utility of any article would rapidly decline, and hence a great many different articles would be consumed.

In contrast with the action of this individual at a free dinner, let us picture his actions at an ordinary dinner for which he must pay. He will now consume a very different set of articles from those he consumed at a free dinner. The knowledge that a given article of which he is very fond costs twice or three times as much as some other article for which his desire is much less, will usually cause him to eat the latter article, even though his appetite for it is much weaker. Many of the costly articles of which he partook largely at the free dinner will not come into his ordinary dinner at all, while other articles will seldom appear on his table, and then be eaten very sparingly ³²).

The utility theory does not hold that the utility of each unit of a good equals that of the marginal unit or the marginal utility of that good, but explicitly recognizes the difference in utility of the diverse units. But it explains why, despite that difference in utility, an equal valuation takes place for each of the units.

All the constituents of a stock have the same economic importance, and none the less some have greater utility than others ³³).

The possibility of substitution of different units for one another entails only that "any item regarded as portion of a stock already

³²) Simon N. Patten, "The Effect of the Consumption of Wealth on the Economic Welfare of Society," (1886) in: *Essays in Economic Theory*, New York, 1924, p. 1. Patten has a terminology all his own ; what is generally called marginal utility he terms subjective value. See his "Theory of Dynamic Economics," (1892) (*Essays*, p. 71.)

³³) Taussig, *op. cit.*, 4th ed., p. 111. Incorrect, therefore, and certainly not in accord with traditional doctrine, is the following : "In the traditional language of economics, the satisfaction or enjoyment *per unit* which a person derives from a good is called its *marginal utility* to him." (Clyde G. Chenoweth, *An Introduction to Economics*, New York, 1941, p. 521. First italics supplied.)

in hand may be considered marginal — not each one. *The marginal unit is undetermined* ³⁴).

This equal appreciation notwithstanding the difference in utility can be demonstrated with the help of the so-called marginal principle which states that the loss of any one unit will result only in the sacrifice of the least important application of that unit. This reasoning, however, supposes the idea of a "supply" as the basis for the marginal utility concept; it can therefore be applied to a limited number of cases only.

A strict argumentation can be given by showing that a valuation which bases itself on utility other than marginal utility is not tenable. A higher valuation would make it attractive to bring a greater sacrifice than the marginal sacrifice, which involves a contradiction. A lower valuation would mean that there is an inducement to bring a sacrifice which is greater than the utility to be acquired, and this too involves a contradiction. The validity of this proof does not assume the postulate of economic rationality but only that of preference ³⁵).

This demonstration appears already in the works of the great master of American economics, John Bates Clark, whom we can quote only occasionally since his main contributions lie in the field of production and distribution:

The effective utility of any unit of a good that an hour's labor will produce can never be more than enough to offset the disutility of a marginal or final hour of labor... A man will prize it according to his dread of the sacrifice in getting the duplicate ³⁶).

And, on the other hand:

The utility of a further unit of an overproduced kind of wealth will not be enough to keep [a person] working ³⁷).

Clark's terminology is noteworthy. He does not identify effective utility with marginal utility. Marginal utility is said of the good as such; effective utility relates to one unit of the good and is the specific utility of the final unit ³⁸) transferred to the other units by

³⁴) Davenport, *Value and Distribution*, p. 312.

³⁵) These postulates will be discussed in Chapter VIII.

³⁶) John Bates Clark, *Essentials of Economic Theory*, New York, 1907, p. 53.

³⁷) John Bates Clark, *The Distribution of Wealth*, p. 44.

³⁸) *Essentials of Economic Theory*, p. 55 Note.

man's appreciation³⁹). It can also be applied to a stock. But it is not correct to speak of the marginal utility of a unit, and much less of the marginal utility of a stock of goods⁴⁰). If we transpose Seligman's statements as quoted above into Clark's terminology, they sound as follows :

Effective utility is... power to modify [a person's] subjective condition⁴¹).

At any given time the effective utility of each apple is equal to that of the last.

The effective utility of a stock is the utility of the final unit times the number of units... The effective utility of four apples is four times the utility of the fourth.

³⁹) *Distribution of Wealth*, p. 42.

⁴⁰) Actually Clark speaks of the "utility of the final unit" and of the "final utility of a good."

⁴¹) Cf. John Bates Clark, *Philosophy of Wealth*, Boston, 1887, p. 78. See also *Distribution of Wealth*, p. 20.

CHAPTER V

MEASURING UTILITY

Irving Fisher has distinguished himself by investigating the possibility and proposing a method of measuring utility¹⁾. He himself admits the great difficulty of that task²⁾, and it is subject to doubt whether he overcame it. For in the first place utility is not a quantitative magnitude despite all his assertions³⁾, and, moreover, in the second place he himself indirectly concedes that a satisfactory method as yet has not been found: "It is sufficiently measurable to make its study of great and fundamental importance in economics"⁴⁾. His ingenious unit of utility, the "util", and later the "wantab"⁵⁾, have met with little success, the only supporters being some economists who use them in their textbooks for classroom purposes⁶⁾. Fisher's investigations possibly may be of great importance to the theory of taxation but they do not seem to be relevant to the value theory at this particular point⁷⁾.

The modern school of econometrics hesitated for a long time to make the utility element a factor in its investigations; the tradi-

1) Fisher, "Mathematical Investigations in the Theory of Value and Prices," *Transactions of the Connecticut Academy*, Vol. IX, 1892; *id.*, "A Statistical Method for Measuring 'Marginal Utility,'" in: *Economic Essays in Honor of John Bates Clark*.

2) *Id.*, *The Nature of Capital and Income*, p. 47.

3) "Mathematical Investigations," p. 89.

4) *Elementary Principles of Economics*, p. 301.

5) "Util" derived from utility: "Mathematical Investigations," p. 18; "wantab" from wantability: "A Statistical Method", p. 164.

6) Fairchild, *et al.*, *Elementary Economics*, Vol. I, 3d ed., p. 140, and *Economics*, 1st ed., 1937, p. 85, but they discontinued the practice in subsequent editions. Recently Boulding makes use of the "util" in *Economic Analysis*, pp. 637 ff.

7) Pure utility, unmingled with elements of exchange value, does not seem to appear as such in practical life. It would be better to discontinue speaking of utility in the proper sense and introduce some concept related to subjective value. Cf. Viner, *op. cit.*, p. 657: "Much of what passes for utility theory is really objective price-theory presented in the purloined terminology of subjective analysis." That Fisher himself realizes this appears from his frequent usage of such expressions as "market decisions," "practical problems," which can only relate to actual exchange values.

tional utility concept seems too passive, and lacking a sufficiently dynamic element to make it the object of a typical econometrical approach.

As long as a concept remains non-operational, it is vain to hope that it will yield to the quantitative approach⁸⁾.

In the attempt to interpret the concept of utility actively the adherents of this school succeed only in developing a mathematical approach to total utility expressed as a function of the utilities of the successive units of the good, without being able to measure these. When the question of exact measurement is discussed, their method consists in studying the effects of changes in the amounts of the goods⁹⁾. Thus the problem is carried over to the field of the indifference curves, but at the same time utility has become relative utility, a notion which belongs to the category of values. How far this idea has strayed from its traditional meaning may be illustrated by the following quotation :

Our theory... is not, or need not be, a subjective theory at all. Its keystone is the notion of indifference curves, with the related notion of index functions — concepts which can be defined in terms of operations, and which have a clear, objective, measurable basis¹⁰⁾.

All this, no doubt, constitutes an important contribution to statistical studies and for purposes of market analysis, but can have no bearing on the theory of value at this stage.

Yet, that utility must be measurable in some way or another seems to be incontestable. How else could we speak of greater or less utility and of diminishing utility? Those who wish to see utility as a property may compare it with the concept of "velocity" — we speak of greater and less velocity (deceleration), etc. To measure velocity we express it in units of distance per unit of time: 35 miles an hour. In the same way we might be able to measure utility if we could determine that some good affords so many units of satisfaction per pound¹¹⁾.

⁸⁾ Schultz, *op. cit.*, p. 12.

⁹⁾ Harold T. Davis, *The Theory of Econometrics*, Bloomington (Indiana), 1941, pp. 54 ff.

¹⁰⁾ Schultz, *op. cit.*, p. 12.

¹¹⁾ Cf. Watkins, *op. cit.*, p. 5: "Contribution to satisfaction... is the conceptual measure of utility."

It is the subjective side of the utility concept which causes a great difficulty. If we take the stand that utility is a relation, we still cannot avoid this same obstacle. The relation is determined by two factors which constitute its basis. In our case one of those factors is given objectively (the good) and as such measurable in circumference, weight, and other qualities, but the other (the want) cannot directly be expressed in measure or number. The psychological science could do us a great favor if it would provide us with a measure and measuring system for the intensity of wants. The economist could then accept this system without becoming a psychologist, just as he can speak of pounds and miles without becoming involved in physics or mathematics.

But psychology is of no assistance and as a result the economists have tried themselves to devise a method of their own. Dickinson, trained in both sciences, attempted to use "response-mechanisms," and expressed the hope that soon we would no longer be confined in our utility judgments to the making of remarks about the choice between two or more utilities¹²). That hope, expressed in 1911, has not yet been fulfilled, and it looks as if economics will never obtain much support from reactions "tested by measuring in terms of foot-pounds on a draw-bar or calories of heat given off, the amount of energy the subject exerts when this response is fully stimulated"¹³). Such measurements depend too much on the intensity of feeling and sensation in general to be at all accurate in reporting the state of a want or desire when the human will exerts its control. Utility corresponds to desire, not to mere feeling. Hence many authors contend that it is impossible to measure the intensity of wants. It was one of the first reactions against the neo-classical school in its early days:

Desire itself, which is the prompter to exertion, cannot be measured, as the most recent school of pseudo-economists attempt vainly to measure it. It... being in its nature subjective, can have no objective measurement until it passes through action into the field of objective existence¹⁴).

¹²) Dickinson, *Economic Motives*, p. 231.

¹³) *Ibid.*, p. 231. Yet, in 1941, Davis still expressed the same hope (*The Theory of Econometrics*, p. 76): "There is some indication... that further development in the field of bio-chemistry may throw considerable light on the matter, since progress has been made in recent years in correlating emotional responses of various kinds with changes in certain glandular secretions of the body."

¹⁴) Henry George, *op. cit.*, p. 197.

From among the modern authors Fairchild may be quoted :

Strictly speaking, utility is not capable of measurement, as we measure the length of a road in miles¹⁵).

This, however, does not mean that it would be better to eliminate all talk of utility from economics. There was a time when there were no thermometers and as a result it was impossible to measure heat. Yet, this did not constitute a sufficient reason to exclude heat as a subject from physical studies. The atom theory was of great service even before it became possible to approach the quantitative dimensions of the atom. The absence of measurability does not imply an absence of intelligibility; as long as a concept can be grasped intellectually, it is useful.

I am not sure that these notions (utilities, disutilities, scarcities) are any more intangible and imponderable than were the concepts of the atom and the electron when first conceived by the physicists, or the idea of the gene in the minds of contemporary biologists¹⁶).

The only attempt to give a quantitative expression to utility which found a number of supporters consists in the indirect method of comparing utility with money. Admittedly, this is a defective standard of measurement but these authors prefer it to the total absence of any standard.

Thus Boulding starts with the assumption that utility is an "intensive magnitude" similar to intensity of light and color, and continues :

Many of these appear even in the physical sciences, and the difficulties of measuring utility are not fundamentally greater than the difficulties involved in measuring any other intensive magnitude. (Brightness in terms

¹⁵) *Economics*, 2d ed., p. 99. See also Gemmill, *Fundamentals of Economics*, 3d ed., p. 596; Warren C. Waite, *Economics of Consumption*, New York, 1928, p. 80; Davis, *op. cit.*, p. 2; Haney, *Value and Distribution*, p. 89; Willford I. King, "Income and Wealth," *American Economic Review*, Vol. XV, 1925, p. 474. Cf. Ely, *Outlines*, 5th ed., p. 98: "Some economists think that such a measure is theoretically as well as practically impossible."

¹⁶) Raymond T. Bye, "Political Science, Political Economy, and Values," (Presidential Address), *American Economic Review*, Vol. XXXIV, 1944, Suppl., p. 7. See also Commons, *Institutional Economics*, p. 266: "Measurement is not ultimate — it does not tell what is really true — it is only the language of number in terms of artificial units not found in nature but put there by collective action to facilitate transactions. Thus we separate the theory of measurement from the theory of reality."

of foot candles, redness in terms of the proportion of light waves of a certain wave length) ¹⁷⁾.

Eddie also compares utility with intensity of color ¹⁸⁾, and, following Boulding, he proceeds to measure this "intensive magnitude" in satisfaction per dollar spent on it. Others do so without any introduction :

Utility can be measured, for the purpose of economic study, in one way only : by the amount which a person will give to procure an article or a service. Enjoyment or satisfaction is subjective. The objective test of it is willingness to pay. What a person will pay for an article rather than go without it, is the only test by which we can ascertain with any approach to precision how much satisfaction it brings him. Hence price, actual or potential, is the economic measure of utility ¹⁹⁾.

Gemmill distinguishes between marginal utility and satisfaction and though he considers satisfaction to be subjective and "largely incapable of measurement" he asserts that "the price paid unquestionably measures the marginal utility of the good" ²⁰⁾.

Fairchild, on the other hand, changed his opinion in later editions, revoking his former position in which he held that "it is convenient and usual ... to measure utility in terms of money, and we may take as the unit for measuring utility, the monetary unit" ²¹⁾. Now he holds that "utility is such an elusive thing that it defies measurement" ²²⁾.

Some of these quotations can be interpreted in the sense that not money but its marginal utility constitutes the standard for measuring the marginal utility of other goods. Apparently this procedure has the advantage of measuring marginal utility with a unit of marginal utility, and thus finds many outspoken supporters :

¹⁷⁾ Boulding, *op. cit.*, p. 643.

¹⁸⁾ *Op. cit.*, 3d ed., p. 318.

¹⁹⁾ Taussig, *op. cit.*, 4th ed., p. 110. Utility is here used for marginal utility for, on page 118, Taussig writes : "The differences in income, the illusiveness of prestige, the doubtful satisfaction of a pain economy, combine to render a calculation of a real enjoyment impracticable. We cannot measure with any approach to accuracy the satisfactions got from wealth."

²⁰⁾ *Op. cit.*, 3d ed., pp. 596 and 601, respectively. Cf. also Gemmill-Blodgett, *op. cit.*, pp. 527 and 531.

²¹⁾ *Elementary Economics*, Vol. I, 1st ed., 1926, p. 299. Also, 2d ed., 1930, p. 239.

²²⁾ *Ibid.*, 3d ed., 1936, p. 150. Cf. also his *Economics*, 2d ed., p. 99, already cited.

Money, like all commodities and services, has its own "marginal utility" ... To any individual at any given time the dollar affords a practical unit of marginal utility or subjective value²³).

The purchaser knows what a dollar is worth to him, and he compares the marginal utility of any commodity with the marginal utility of the money required to purchase it²⁴).

All these authors agree with regard to this point that the marginal utility of the monetary unit in these cases is entirely individual and subjective, and that it must be considered as a different unit for different individuals. Hence, the result is not a unit which can be generally applied but a different one for each individual case²⁵). Fisher himself states explicitly that:

Marginal utilities not only are impossible to measure, but are unequal and vary unequally among individuals²⁶).

Such a statement sounds strange in the mouth of one who has been foremost in the field of utility measurement. It seems to confirm the opinion that when Fisher speaks of measuring utility in his other works what is meant is really some notion related to subjective, or even objective, value.

It is, then, definitely unfair to describe the "marginist" as

making the broad assumption that money measures individual utilities and disutilities; and that market price in the form of demand and supply represents the summation of all personal utilities and disutilities²⁷).

Such a summation is impossible since a different unit has been used as the standard of measurement for each individual, and the average "marginist" is well aware of this fact.

Does a dollar serve as a common measure of marginal

²³) Ely, *Outlines*, 6th ed., p. 161; see also 5th ed., p. 98.

²⁴) Charles J. Bullock, *Elements of Economics*, p. 18 Note. See also his *Introduction to the Study of Economics*, 4th ed., New York, 1913, p. 193. Cf. Boulding, *op. cit.*, p. 643.

²⁵) Fetter, *Economic Principles*, p. 253.

²⁶) Irving Fisher and Harry G. Brown, *The Purchasing Power of Money*, New York, 1911, p. 220.

²⁷) Harvey W. Peck, *Economic Thought and Its Institutional Background*, New York, 1935, p. 198. He calls this form of reasoning a "bold metaphysical leap". It is.

desirability? The answer is most emphatically in the negative ²⁸⁾).

Assuming for the moment that it is legitimate to define the unit of utility in terms of money, and limiting its application to the individual case, what do we gain?

Sixpence gives neither any general measure of utility nor any measure to any particular individual. The price that one is just willing to pay is an expression of the relation in utility of the good under consideration to other goods purchasable with the same money, but gives no information as to the absolute utility of any of those different goods ²⁹⁾).

What do we gain by saying that the utility of a table is ten times that of a dollar, i.e., twice that of a chair, assuming that we can buy a chair for \$ 5? The question is: How great is the marginal utility of money, how great the utility of a chair, and how does it happen that you can buy a chair for \$ 5? The fact that there exists a relation between utility and money is not a sufficient ground to make money a suitable standard; a relation also exists between volume and weight, but it is unthinkable to measure volume in pounds.

This way of expressing utility in money can have a legitimate meaning only after the connection between utility and money has been determined. The theory of value cannot assume it but has to lead to it. Money and prices are factors which demand an explanation, and to involve them in any discussion before this explanation is given amounts to losing sight of the entire issue. For that reason Haney rejects the very expression "marginal utility of money" and sees in money only a sort of subjective exchange value

²⁸⁾ John R. Turner, *op. cit.*, p. 120. Cf. also Fisher, "Mathematical Investigations in the Theory of Value and Prices," *Transactions of the Connecticut Academy*, Vol. IX, 1892, p. 37; Davenport, *Value and Distribution*, p. 312; Viner, *op. cit.*, p. 377; Frank O'Hara, Joseph M. O'Leary, and Edwin B. Hewes, *Economics, Principles and Problems*, New York, 1939, p. 58; Charles E. Persons, "Marginal Utility and Marginal Disutility as Ultimate Standards of Value," *Quarterly Journal of Economics*, Vol. XXVII, 1913, p. 548. See also G. A. Kleene in: Round Table Conference on the Relation between Economics and Ethics, *American Economic Review*, Vol. XII, 1922, Suppl., p. 197.

There are cases in which the possibilities of a comparison of the utility to different individuals is assumed but they are not numerous, and will be discussed in the chapter on Social Utility.

²⁹⁾ Davenport, *Value and Distribution*, p. 372 Note. See also pages 313 and 571.

or indeed even less, an "intermediate subjective exchange value" ³⁰⁾).

Clark's analysis often runs in terms of money and prices, thus provoking the just criticism of Anderson: this process can only lead to a simple description of the manner in which individual proportions are determined in the market, and fails entirely in giving a logical foundation of objective value, since a complete system of objective values is supposed to be in existence from the very outset ³¹⁾.

Sometimes in an argument of this sort an appeal is made by mathematically inclined economists to the idea of two interdependent factors which supposedly determine each other. Such a mutual process, however, cannot be accepted for an explanation; the height of two values may be determined each by the other but value as such can never be explained in this manner. The whole situation would remain hanging in the air.

Fisher himself seems to have perceived that the application of the monetary unit in this instance implies the determination of a cause by expressing it in its effects ³²⁾. This procedure is entirely legitimate provided one does not proceed to determine the effect by expressing it later in its cause. And that is exactly the point to which this method would lead us: it endeavors to seek the explanation of price in the utility concept, but in the process uses the very notion of price in order to measure utility. Take, for example, Fisher's exposition of the demand for coal:

The demand curve is... the result of innumerable individual demand curves; ... each of these individual demand curves is in turn the result of two desirability curves — one for coal and another for money — which characterize the given individual. These desirability curves are the ultimate curves lying back of demand, and the demand curve is, as it were, a desirability curve translated into money ³³⁾.

³⁰⁾ *Value and Distribution*, pp. 233 and 249. About the same in Turner, *op. cit.*, p. 229. Fisher, on the other hand, is of the opinion that "the marginal desirability of money... has the same sort of meaning as the marginal desirability of any other good... The marginal desirability of money to a man is the desirability of a dollar to him." (*Elementary Principles of Economics*, p. 287.)

³¹⁾ Anderson, *Social Value*, p. 38.

³²⁾ *Elementary Principles of Economics*, p. 301: "To measure desirability in terms of money is merely to measure a cause by its effect; for all money valuations depend on desirability."

³³⁾ *Ibid.*, p. 294.

These two curves, however, are not independent variables; the individual demand curve for money is partially built on the demand for coal, for we desire money to be able to buy coal. The demand curve for money, therefore, is so composite that every other demand curve enters into its constitution; to call it an "ultimate" curve is absurd. In this manner the factor which is to be determined is used as determining itself, which constitutes the beginning of a circle in reasoning³⁴).

Even if it were entirely correct to say, as Gemmill does, that:

Buyers are continually comparing the relative utilities of various commodities, but these comparisons are ordinarily made in terms of money, the estimated utility of each commodity being first reduced to the common denominator, money,³⁵)

still the fact would remain that we are trying to explain this behavior, that we want to show why these comparisons can be made in terms of money. In other words, we wish to inquire whether there is a relation between utility and price, and, if so, in what does it consist. To assume the existence of such a connection and to use it in its own explanation amounts to "begging the question"; it constitutes a vicious circle in the argument³⁶).

The suggestion has been made that

the law of value cannot be more than a reflection of the processes of the market. It cannot do more than point out the conditions under which the current price of a given commodity tends to remain stationary... It is therefore logically admissible to assume current prices as known³⁷).

Admittedly the law of value can be applied to such a problem of

³⁴) Young's remark about comparing values applies equally to the comparison of utilities: "There should be no room for such crudities as even an implied determination of prices by the comparison of the 'values of commodities' and the (independently determined) 'value of money'." (Allyn A. Young, "Some Limitations of the Value Concept," *Quarterly Journal of Economics*, Vol. XXV, 1911, p. 419).

³⁵) Gemmill, *op. cit.*, 1st ed., p. 271. This statement is not quite correct, and was dropped in later editions.

³⁶) Cf. Knight, *Risk, Uncertainty, and Profit*, p. 116, Note 1: "It seems to me manifest absurdity to define [services] in price terms as does Professor J. B. Clark... There would be only one factor if measured in price terms, and the theory of distribution would be a pure *petitio principii*."

³⁷) Hugo Bilgram, "The Equivalent Concept of Value," *Quarterly Journal of Economics*, Vol. XXX, 1916, p. 199.

the current price of a given commodity, and in the application assume the other prices to be known, but if it cannot do more, it is no law at all. For as any law must necessarily express a general statement, the law of value must apply to prices in general if it is to be a law. And by merely "reflecting" the processes of the market no law will ever be established, but only descriptive material collected. An explanation of price cannot run in terms of prices, and the same is true of value³⁸).

Taussig has sensed that one cannot speak of marginal utility of money in the same sense in which this is done of other goods; at least not in this stage of the theory of value.

The phrase "marginal utility of money" must be used with caution. Money has utility in a different way from other things. It is valued not because it serves in itself to satisfy wants but as a medium of exchange, having purchasing power over other things... Strictly speaking, the statement that money has varying utility and that there is a marginal utility of money is only a way of saying that the things bought with money have varying utility, and that some among them are at the margin of utility³⁹).

But, as Carver neatly observes :

To say that the utility of a piece of money is the utility of the things which it will purchase throws no light on the real question, which is, what determines the number of things which it will purchase ?⁴⁰)

Later, when we study the influence of the possibilities opened up by buying and selling, and the facts of exchange in general, we can and must introduce this concept. But it would be better at that stage not to speak of marginal utility and rather to use a different term for a different concept. Utility prescind from the existence of prices, money essentially presupposes them.

³⁸) "We are thus reaching no ultimate explanation of value determination." Haney, "The Social Point of View in Economics, II," *Quarterly Journal of Economics*, Vol. XXVIII, 1914, p. 305.

³⁹) *Op. cit.*, 4th ed., p. 113 f.

⁴⁰) "The Concept of an Economic Quantity," *Quarterly Journal of Economics*, Vol. XXI, 1907, p. 442. Carver considers the utility of money to consist, "like that of any other tool, in the fact that it saves trouble or labor." (See, for example, his review of L. V. Birck's "Theory of Marginal Value," *Quarterly Journal of Economics*, Vol. XXXVII, 1923, p. 740): the "power to satisfy a want" apparently may mean "the power to save trouble." Obviously money, like any other tool, has only derived utility, i.e. value.

In the third edition of his *Principles*, Taussig tries to introduce the term "marginal vendibility" in which he sees "the resultant of two forces, diminishing utility of successive units and inequality of income" ⁴¹). Adoption of such a term for the purposes of market analysis seems eminently sound, as it would do away with a great deal of confusion which is caused by the use of marginal utility in this connection ⁴²). Marginal vendibility represents the same ratio as subjective value but with two modifications: (a) the first factor is basically the marginal utility of a good, but now considered as affected by the facts of exchange and exchange possibilities; (b) the second factor in the ratio is now money, not merely considered as a common denominator, but as a generally accepted medium of exchange, and valued on the basis of existing exchange rates. It is at this point that the notions of indifference and substitution make their entrance, and may lead to a general equilibrium theory, in which money must play its part. But this part is to be played without the benefit of any "marginal utility of money," since money does not and cannot enter on the utility level. It has, however, like any other exchangeable good, its "marginal rate of substitution." And that is sufficient for the construction of an equilibrium.

The existence of a vicious circle in the value theory caused by the introduction of a measurement in terms of money was implicitly noted by Davenport when he objected to the measuring of a "primary" factor by referring to a "secondary" one. Explicit mention of it is made by Anderson, ⁴³) Kiekhofer, ⁴⁴) and Haney:

It is an error to say that the marginal utility of money depends upon the marginal utility of the goods for which money will exchange . . . Such a statement assumes that

⁴¹) *Op. cit.*, 3d ed., p. 123 (4th ed., p. 113). Taussig's "careful caution as to the effect of inequality" of income was noted, even before he proposed his new term. See Persons, "Marginal Utility and Marginal Disutility as Ultimate Standards of Value," *Quarterly Journal of Economics*, Vol. XXVII, 1913, p. 547.

⁴²) Deibler, *op. cit.*, p. 222 Note, rejects the new concept as not useful for the theory of value. Admittedly it does not enter into the logical basis of exchange, but it is useful for other purposes and, even here, helps to avoid possible confusion. Difficulties against the principle of diminishing utility arising from the notions of prestige and the desire for money for its own sake can be met by taking them out of the field of utility and solving them in terms of "marginal vendibility."

⁴³) *Social Value*, p. 46.

⁴⁴) *Op. cit.*, p. 469.

money will exchange for a definite quantity of goods, which is equivalent to assuming its purchasing power, and therefore its value. For all we know, the subjective value of money may equal its purchasing power, but the problem before us is to explain that purchasing power. Purchasing power depends upon how much of the goods money will buy, and thus assumes that the price has already been determined ⁴⁵).

It follows that there is no place in the utility theory for examples which use amounts of money and prices as illustrations. It is by using them that many authors have created the impression that the subjective value theory reduced both price and value to marginal utility as if value were nothing but the objective expression of marginal utility ⁴⁶).

It is sufficient to assume that utility possesses dimensions which can be quantitatively expressed even though we have no means of measuring them exactly at the present moment. As we shall see, the theory of value has no need of measuring absolute utility.

⁴⁵) Haney, *Value and Distribution*, p. 417.

⁴⁶) For a list of authors who make this impression, see Anderson, *Social Value*, p. 41. One might add: Nystrom, *op. cit.*, p. 47; Mussey and Donnan, *op. cit.*, p. 224; Deibler, *op. cit.*, p. 222.

CHAPTER VI

SUBJECTIVE VALUE

The absolute magnitude "marginal utility" can therefore not be approached quantitatively at the present stage of the theory, at least not sufficiently to be used as a foundation for the price theory.

Considered merely as the marginal item in an individual schedule, marginal utility becomes no more than vaguely quantitative: smaller than any other in the series¹).

In a merely logically consistent system, it would, of course, be possible to postulate measurability, and those who see in the value theory a mere juggling of concepts will not object to such a procedure. It is only one step further in abstraction and does not contain any logical contradiction either in itself or in its consequences²). But the theory of value is more than a fantastic logical system; it does not admit of every postulate which keeps it free from contradictions.

However, even if there were no difficulties in measuring marginal utility, it would still be necessary to derive from the absolute magnitude a relative concept in order to transfer the problem out of the subjective order into the objective. The following example will illustrate this necessity.

Suppose that we could dispose of a unit of utility, for example, Fisher's "util," and could determine that the utility of a hammer to a certain person amounted to 60 utils, and that of apples to

¹) Davenport, "Proposed Modifications in the Austrian Theory and Terminology," *Quarterly Journal of Economics*, Vol. XVI, 1902, p. 363. Davenport speaks here of marginal utility in the strict sense, the concept which in his *Value and Distribution* is termed "subjective worth." At the time his article was published he had not changed the terminology. Our quotation appears also in *Value and Distribution* (p. 313).

²) Thus, Professor Arthur F. Burns, Columbia University, in a conversation with the author. It would perhaps be possible to reconcile some of Fisher's contradictory statements if we may apply his assertions about the measurability of utility to the logical system only; the non-measurability would apply to the realistic applications of the system.

3 utils apiece, it would follow that this person prefers a hammer to 19 apples, and that he reaches a point of indifference between them when he compares the utility of 20 apples with that of a hammer. Suppose, moreover, that another person estimates a hammer at 50 utils and apples at 2 utils apiece, then the point of indifference to him is obtained in the comparison of the utility of 25 apples to that of a hammer. It is to be noted that the person with the greater absolute utility for the hammer esteems it lower in terms of apples. If ever these two persons came to exchange apples and hammers, the second would emerge from the exchange with the hammer despite the fact that he ascribed less absolute utility to it³).

The absolute size of the marginal utility, therefore, is not decisive. Even if we could measure it, the problem would not be solved⁴). Our task would only be much more easy, for we would be able to take the next step, which consists in comparing two absolute magnitudes with every factor known. As it is, our problem consists in comparing X with Y, both unknown magnitudes. From this comparison a new magnitude appears, a ratio, consisting in the proportion of marginal utility A to marginal utility B.

This new factor has been referred to as "relative marginal utility,"⁵) a term which, on the one hand, sounds satisfactory since it accentuates the relativity of the notion explicitly, but, on the other hand, it is liable to cause misunderstanding by retaining the idea of utility. For "relative marginal utility" is no longer utility, it is merely a ratio of two utilities and belongs essentially in the category of value. It is subjective value.

The relativity of this concept cannot be stressed strongly enough as it is so easily overlooked⁶). This opens the way for misunderstandings and has often caused the mistake of identifying value with marginal utility. The two concepts belong each to a different order; they lie on a different level. Utility and marginal utility, disutility and marginal disutility, are "primary" value concepts; subjective value, objective value, and price are "secondary" con-

³) Hence, the obvious and important, but apparently hard-to-realize, truth that an exchange "is not so much an equality as two inequalities." (Boulding, *op. cit.*, p. 25.)

⁴) Boucke's assertion that utility theory essentially consists in an attempt to measure feelings is fantastic (*A Critique of Economics*, p. 74).

⁵) Davenport, *Value and Distribution*, p. 313.

⁶) Cf. Knight, *Risk, Uncertainty, and Profit*, p. 63.

cepts⁷⁾. Failure to see this distinction caused Henry George, in the early days of the theory, to object in the following manner:

The psychological school, setting aside all distinction between value in use and value in exchange, makes value without distinction an expression of the identity of desire, thus tracing it to a purely mental or subjective origin⁸⁾.

Yet the critic can hardly be blamed in view of the fact that several economists of name, such as Arthur T. Hadley and J. Laurence Laughlin, were unable to penetrate to this fundamental idea of the relativity of value. Hadley thinks it very important that the utility theory discovered a direct connection between utility and price⁹⁾, while Laughlin, criticizing "some writers," objects to the omission of scarcity in the analysis of exchange value¹⁰⁾. As shown in Chapter IV, there is no ground for remarks of this kind. Davenport's *Value and Distribution* (1908)¹¹⁾ has shown conclusively that the defects in the Austrian theory, to which Laughlin manifestly refers, pertain largely to the terminology; they often used the words "marginal utility," "marginal cost," and "subjective value" interchangeably, and much of the confusion could have been avoided if these concepts were sharply and logically formulated. Below the surface of words and vaguely defined ideas, the concept of scarcity does appear in their system albeit in the form of "opportunity-cost"¹²⁾. The very definition of marginal utility shows that the element of scarcity is necessarily present. Else no margin would ever appear. The writers criticized by Laughlin because their "final" utility regulates value cannot therefore be blamed for overlooking scarcity as a contributing factor; for their idea of "final utility" implies it. But Laughlin errs with them when he presents

⁷⁾ Cf. Haney, *Value and Distribution*, p. 167.

⁸⁾ *Op. cit.*, p. 173.

⁹⁾ Hadley, *Economics*, p. 80.

¹⁰⁾ Laughlin, *op. cit.*, p. 160. The same criticism appeared in the reprints which followed in 1909, 1915, and 1920.

¹¹⁾ Most of his "Proposed Modifications in the Austrian Theory and Terminology," (*Quarterly Journal of Economics*, Vol. XVI, 1902) was incorporated in this book.

¹²⁾ Davenport, *Value and Distribution*, p. 329 Note. Cf. F. Wieser, "The Theory of Value": in *Annals of the American Academy*, Vol. II, 1892, p. 620: "The Austrian School does not in any way destroy the idea of cost or the law of cost, it only endeavors to combine both with the general idea of value and its general law, and to explain them in this way." (Cited in Haney, *History of Economic Thought*, 3d ed., p. 612.)

the case of marginal utility in such a manner that its absolute size becomes the determinant and regulator of value.

This also applies to Seligman when he maintains that :

as soon as we grasp the fact that the utility with which economics deals is marginal utility, the old distinction between value in use and value in exchange disappears¹³).

In his criticism of the Austrian School, Haney, himself an adherent of the subjective value theory, brings out the fundamental reason for the necessity of using a relative concept. According to him, the Austrians overlooked this vital link in the reasoning.

It cannot be said that the Austrians have succeeded in bridging the gap between individual sensations and the phenomena of market value or price. Marginal utility is a purely individual phenomenon. It is difficult, to say the least, to compare men's judgments, the difficulty lying chiefly in the differences among individual sensibilities, tastes, and purchasing powers. Yet such a comparison is necessary in order to arrive at an exchange value... The Austrians leap from a purely subjective basis to a conclusion concerning objective phenomena¹⁴).

Indeed, the derivation of the value of a good from its marginal utility involves a return to the classical theory of "real cost." It can be held only for a Crusoe economy, but manifestly does not apply to an exchange society. That Marshall (and the Austrians) did not entirely follow through with the relative notion seems certain, so much so that it is difficult to give Marshall credit for establishing a synthesis between the "subjective" and "objective" theories. He combined them within the confines of his *Principles*.

¹³) "Social Elements in the Theory of Value," *Quarterly Journal of Economics*, Vol. XV, 1901, p. 326. In his *Principles* this quotation appears on page 182, followed on the next page by : "Value in exchange is nothing but the expression of its true value in use to the members of the social group, that is, of its marginal utility." However, Seligman did realize the relativity of the value concept : "The rate of exchange may be stated as the law of comparative marginal utilities" (*Principles*, p. 226). Other identifications of value and utility may be found in Bullock's *Elements* (p. 19), Ely's *Outlines* (6th ed., p. 213), Nystrom (*op. cit.*, p. 37), Keasbey (*op. cit.*, pp. 456 ff.). Davenport complained in 1908 that at that time "the general understanding of Austrian theory [had] come to be that it explains market value by marginal utility, and resolves market value into marginal utility." (*Value and Distribution*, p. 300)

¹⁴) Haney, *History of Economic Thought*, 3d ed., p. 632.

but at the cost of giving two contradictory interpretations to the value concept¹⁵).

This necessity of operating with a relative idea instead of an absolute one is clearly noted by the most distinguished American economists and thus, far from identifying value in use with value in exchange, the old distinction between them is shown to be a specific distinction.

The absolute utility associated with any commodity-increment to any person, or its comparative magnitude for different persons, never comes in question in the theoretical explanation of the phenomenon, however important it may be for questions of ethics and of social policy¹⁶).

The ratio which expresses the relation between two utilities can be reduced to a question of pure preference. It is unnecessary to assume that a consumer can say how much more utility he experiences from a hammer than from an apple, or whether he prefers it 20 times to an apple. It is sufficient that he can decide for himself that he prefers 21 apples to a hammer; this will give him a basis of exchange if another person can be found who prefers the hammer to, say, as many as 24 apples¹⁷). Stigler's opinion¹⁸) that the fundamental difference between the marginal utility theory and the indifference curve approach consists in this necessity is therefore unfounded¹⁹). Of course, the preference has to be sharply indicated

¹⁵) Herbert J. Davenport, *The Economics of Alfred Marshall*, Ithaca (New York), 1935, pp. 17 ff.

¹⁶) Frank H. Knight, "Fisher's Interest Theory," *Journal of Political Economy*, Vol. XXXIX, 1931, p. 184. For explicit admissions of the relativity of the value concept, see: Carver, *Distribution of Wealth*, p. 6; Ely, *Outlines*, 6th ed., p. 155; Seligman, *Principles of Economics*, p. 225 f.; Patten, "Theory of Dynamic Economics," in: *Essays in Economic Theory*, p. 70; Johnson, "Davenport's Economics," *Quarterly Journal of Economics*, Vol. XXVIII, 1914, p. 426 f.; Dickinson, *Economic Motives*, p. 229; Fairchild, *Economics*, 2d ed., p. 438; Deibler, *op. cit.*, p. 78; Harry G. Brown, *Economic Science and the Common Welfare*, 5th ed., Columbia (Missouri), 1931, p. 244; and Haney, *Value and Distribution*, p. 224 f. It is to be regretted that sometimes money or purchasing power are accepted as the second element in this ratio instead of retaining the purely subjective idea of utility in both factors. See, e.g., Boulding, *op. cit.*, p. 642.

¹⁷) Cf. Viner, *op. cit.*, p. 377; Davenport, "Proposed Modifications in the Austrian Theory and Terminology," *Quarterly Journal of Economics*, Vol. XVI, 1902, p. 378 f.

¹⁸) Stigler, *The Theory of Competitive Price*, p. 76.

¹⁹) Boulding, *op. cit.*, p. 643: "We do not have to assume that we can measure by *how much* the utility of one thing is greater than that of another." But

and should not be put in vague terms, but if this is done there is no reason why the utility theory could not reach a basis of exchange without any additional assumptions. Whether the exchange ratio must be put at one hammer for 21, 22, 23, or 24 apples cannot be determined by considerations of utility, but is of no importance for this part of the theory²⁰). To call this exchange ratio "accidental"²¹) is certainly misleading, as the possibilities are decidedly restricted between the two limits, and, though the margin at times may be rather wide, there is not an indefinite number of possible equilibrium points. The ratio may be described as "initial," or "tentative," or "unstable," or by any other adjective which indicates the likelihood of a subsequent change, but not as "accidental." The only accidental feature would be a coincidence of the initial rate with the final one, but in that case the coincidence would be accidental, not the rate.

The knowledge of the utility ratio does not imply the least knowledge of the absolute magnitude of the utilities involved. As far as the value theory is concerned, it does not make any difference whether an individual receives 10, 20, or 100 times more satisfaction from a hammer than another person; if he esteems apples also 10, 20, or 100 times higher than that other person, their subjective valuations of hammers in terms of apples are entirely the same²²). But that does not mean that we can agree with Fairchild when he (revoking his former position with regard to the measurability of utility) says:

Because utility cannot be measured and because all that we know either about ourselves or about others is the way in which we will choose between alternatives that are presented to us, the concept of an absolute marginal utility would have no meaning²³).

he does retain money as the factor with which the comparison is made. Cf. Edmund Whittaker, "On Indifference Curves; A Rejoinder," *American Economic Review*, Vol. XXXI, 1941, p. 835.

²⁰) Neither does the indifference curve method succeed in giving more specific results; it can only indicate the limits between which the exchange ratio will come to rest. Cf. Stigler, *The Theory of Competitive Price*, p. 79.

²¹) Young, "Some Limitations of the Value Concept," *Quarterly Journal of Economics*, Vol. XXV, 1911, p. 416, following Marshall's *Principles*, Appendix F.

²²) Cf. Davenport, *The Economics of Alfred Marshall*, Chap. IV, Utility, Price, and Measurement, pp. 69 ff.

²³) Fairchild, et al., *Economics*, 2d ed., p. 107. His former position is explained in Chapter V, p. 53.

For without the absolute concept which is marginal utility, it would not be possible to derive from it the relative concept which is subjective value. Besides, it is quite thinkable that absolute utility might be useful in other fields, such as taxation and social welfare policy.

It is to be noted that the concept of subjective value is as individual a concept as was marginal utility. The name "subjective" is perhaps somewhat misleading, as it has reached a greater degree of objectivity than the foregoing stages. It is subjective only because it gives expression to the ratio of personal utility, and this expression depends entirely on the subject. But, unlike utility, the subjective value of one person can be compared with that of another person. This fact enables us to construct the logical basis of an exchange.

Because of the impossibility, or at least the present insurmountable difficulty, of measuring absolute utility, a direct comparison between one individual's utility and that of another must be avoided. The concept of subjective value, however, yields an objective factor, a ratio, which is capable of the comparison that is needed.

The marginal desirabilities of different classes of purchasers are comparable only in the sense of the equality of ratios²⁴).

Consequently the doctrine of utility involves only comparisons of utility by each individual for himself; "no comparison as between one individual and another, whether of utilities or disutilities, is called for"²⁵). Subjective value therefore constitutes the basis of an exchange position. This aspect may be expressed by the term "price offer"²⁶) if it is borne in mind that idea of price itself has not yet been reached. More accurate, perhaps, would be the term "exchange offer," which relates directly to the next stage in the process of thought, and avoids the possible confusion with such elements of the market as are associated with the idea of price.

²⁴) Turner, *op. cit.*, p. 121.

²⁵) Frank H. Knight, "Marginal Utility Economics," in: *The Ethics of Competition and Other Essays*, New York, 1935, p. 152; cf. Fisher, "Mathematical Investigations in the Theory of Value and Prices," *Transactions of the Connecticut Academy*, Vol. IX, 1892, p. 89; Bilgram, *op. cit.*, p. 194.

²⁶) Davenport, *Value and Distribution*, p. 571: "Two subjective worths in comparison explain price offer." Elsewhere he refers to the same idea calling it "demand price." (*Economics of Enterprise*, p. 104.)

Exchange offer is the very first step of the individual towards the market, and has undergone no influence from it.

Now that we have found a basis for an exchange, we may without risking a vicious circle trace the effects which exchange possibilities bring about in the utility concept²⁷⁾. Once a person discovers that his point of indifference is not shared by others, he will change his relative estimation of the two goods. If he is indifferent as to one hammer and 20 apples, and it appears that he can obtain more than 20 apples for his hammer, he will either estimate his hammer higher than before or his apples lower. For he now has discovered a manner to obtain apples at lower cost; his marginal disutility which amounted to 60 utils for 20 apples has decreased to 60 utils for 21, 22, 23, or 24 apples, but his marginal utility decreases accordingly. Or, one may reason as follows: there is an inducement for him to increase his marginal disutility for hammers to more than 60 utils since he now can receive in exchange as many as 63, 66, 69, or 72 utils. Here, too, marginal utility will increase accordingly. A combination of these two processes is more likely to take place since, in the course of the exchange, the quantities of both goods will be altered²⁸⁾.

Thus, as a result of their meeting, the two parties in an exchange will emerge from the exchange with equal valuations, but presumably with unequal absolute utility estimates. If a third party with his own personal ratio between hammers and apples is now added, a new basis of exchange will be formed and a new valuation will result from this exchange; all three will possess equal ratios regardless of their absolute utility estimates. This process can be extended to a group and even to society at large.

Whenever the exchange ratio of any two commodities is different from the relative esteem in which *any* consumer holds individual units of the two, he will shift his consumption from one to the other until the utilities to him of amounts equally priced in the market are equal²⁹⁾.

²⁷⁾ Cf. Fetter, *Economic Principles*, p. 42.

²⁸⁾ A change in the marginal sacrifice necessarily accompanies the changes in quantity, so that even in this consideration we can dispense with the "supply" concept of marginal utility. Cf. Chapter IV, p. 42.

²⁹⁾ Frank H. Knight, "A Suggestion for Simplifying the Statement of the General Theory of Price," *Journal of Political Economy*, Vol. XXXVI, 1928, p. 353. Cf. also Fetter, *Economic Principles*, p. 68 f.; Haney, *Value and Distribution*, p. 215; O'Hara et al., *op. cit.*, p. 122.

The subjective individual value has now been transformed by the exchange into an objective and generally accepted valuation. And if we could assume that apples were used as a general means of exchange, we could already speak of a price.

Though mathematically more complicated, there will be no difficulty in agreeing that the same process leads to a similar effect if more than two goods are considered. A mutual determination can now be admitted in which quantities and exchange ratios adapt themselves to an objective value which proceeds from the subjective values, and all objective values finally reach an equilibrium in which they are interdependent.

The genetic process of the development of a particular means of exchange is not important for economic theory ; it may prudently be left to economic history. The only task which should be imposed on the theory of value consists in making logically acceptable the basic foundations of the price concept so that they may be useful in the erection of a price theory.

CHAPTER VII

OBJECTIVE VALUE

With the notion of subjective value the theory discards the concept of utility and carries the analysis over into the field of values. The theory of value will not be treated here; only the notion of value will be further examined in the interest of the vindication of the foregoing utility doctrine.

The traditional view defines the value of a good as its ratio of exchange, or the power it possesses to command other goods in peaceful exchange¹). Though the word "power" may seem to indicate a property or quality, there can be no doubt that those who adopt this definition look upon value as something relative. The use of the word "power" only brings out the fact that it is very difficult for our intellect to deal with relative concepts, and that we, as a result, try to consider a relation as if it were a substance or an absolute entity²). It is, of course, allowable to make a relation the basis or foundation of another new relationship, i.e., we can compare two relations, provided we do not thereby destroy the relative nature of the concepts which constitute the terms of this new relation. The first relativity as such does not enter into the essence of the second and may therefore be treated as if it were something absolute. It was in this sense that we spoke of "absolute utility," without touching the essentially relative nature of utility itself.

The same is true of value. One value can be compared with another value, the result being a new relationship, in which both original values may be taken as more or less absolute data. But that does not change the essence of these values which is and remains something relative.

It goes almost without saying that the validity of the entire

¹) E.g. Brown, *op. cit.*, p. 204; Thomas N. Carver, *Principles of National Economy*, Boston, 1921, p. 339; Deibler, *op. cit.*, p. 202; Ely, *Outlines*, 6th ed., p. 150.

²) Cf. Fetter, *Economic Principles*, p. 102.

utility analysis depends on the adequateness of the concept of value which it develops. If value as existing in reality shows characteristics which cannot be reconciled with the notion of relativity, then the whole explanation of this relativity is beside the point.

We have seen ³⁾ that there exists an inclination to overlook this relativity by identifying subjective value with marginal utility, but this led only to a misstatement or a misinterpretation of the theory. Here we must deal with those who recognize the relativity of the value concept as developed by the utility theory, but who do not judge it adequate for further theoretical development. In so far as these authors wish to introduce social elements into the analysis, they will be discussed in the chapter on social utility. "Social utility" would naturally lead to the substitution of an absolute concept of value for the relative one, but, as we shall reject that notion for the purpose of value theory, we may dismiss the entire issue for the moment. Our only concern here is the attempt to make that substitution without the aid of a different utility concept. The main protagonist of absolute value is Benjamin M. Anderson, Jr.; the publication of his book on "social value" ⁴⁾ was followed by a lively discussion with John Maurice Clark in the *Quarterly Journal of Economics* in 1915, in which several others also took part. A restatement of Anderson's position appeared in *The Value of Money* (New York, 1917).

According to Anderson, relative value is unthinkable unless there exists an absolute value as its foundation:

Value as merely relative is a thing hanging in the air. There is a vicious circle in reasoning if when I ask you what the value of wheat is, you refer me to corn ⁵⁾.

But why should value as a relative "hang in the air," solely because it is a relation? According to this reasoning no relation could ever exist at all. It is true that relative value is unthinkable unless it has something absolute for its foundation, but that something absolute need not be value. There is a vicious circle in reasoning only if

³⁾ Chapter VI, p. 62 ff.

⁴⁾ *Social Value; A Study in Economic Theory, Critical and Constructive*, Boston, 1911.

⁵⁾ *Ibid.*, p. 18; cf. also, p. 21: "Gold and milk must be commensurable quantities; that is, must have a common quality, present in each in definite quantitative degrees, before comparison is possible, or a ratio can emerge. This quality is value."

when you ask me what the value of wheat is, I refer you to the value of corn, because the value of corn is something relative in the same sense. But then the same vicious circle would appear if I referred you to the value of money. If it is right to say that the value of a hammer is 60 cents, then it is equally right to say that its value is 25 apples.

Wheat therefore is valued in terms of corn (not in terms of the value of corn), milk in terms of gold, hammers in terms of apples, no differently than they are valued in terms of money. The value is a relation, not between the wheat and the corn, but between the utility of wheat and the utility of corn. This relation is purely quantitative, and may be called a ratio or proportion, unlike utility itself, which is a qualitative relation as between means and end, and therefore not a proportion but a proportionality. Commodities to be valued in terms of one another must have something in common, but this common element is utility, not value. If we bear in mind that, philosophically speaking, utility belongs to the value category⁶⁾, Anderson's objection vanishes in the air. There is indeed a common quality in gold and milk; and "that quality is value," but economics, for reasons of its own, calls it utility⁷⁾. Consequently, when Anderson insists that

value is not logically dependent upon exchange, but is logically antecedent to exchange; a circle in reasoning is involved if the relative conception of value be treated as ultimate,⁸⁾

he shows that the exact point of the utility theory has escaped him, and when he describes the relative value concept as a utility, "backed by *value*," meaning "backed by purchasing power," he misrepresents the utility theory⁹⁾. The relative conception of value is not treated as ultimate if utility is accepted as logically antecedent to exchange. Not all value, but objective exchange value alone, is then dependent upon exchange or at least upon imagined exchange possibilities; subjective value at any rate does not depend on exchange.

⁶⁾ "Esteem value," cf. p. 35, Note 2.

⁷⁾ Cf. Bilgram, *op. cit.*, p. 198; Haney, "The Social Point of View in Economics, II," *Quarterly Journal of Economics*, Vol. XXVIII, 1914, p. 298.

⁸⁾ *Social Value* p. 197.

⁹⁾ Anderson, *The Value of Money*, p. 15. Admittedly some authors have given occasion to this reproach, but Anderson does not mention those who avoid the circular reasoning.

Especially in connection with this problem of value a consistent and rigidly adhered to definition of terms is necessary. Anderson's confusion is due to his vague notion of value, which indiscriminately stands for utility, or subjective value, or objective value.

Just what is objective value? According to the analysis of the previous chapter, objective value arises from the interaction of subjective values in exchange. The individual utility ratios influence one another to bring about a common, general, or social exchange ratio. What happens to utility in this process? The utility ratios of different traders become all alike, for the exchange will continue to operate until this is achieved. The exchange ratio therefore expresses the utility ratio *after* the exchange, while subjective value compares the utilities *before* any exchange takes place. This stage of the argument is perhaps the most difficult part, since the imagination affords very little help. The fact that we must operate with relative entities is not the only obstacle, but the abstract nature of subjective value as well. We never meet subjective value as such in reality. The utility ratios known to us have already undergone the influence of the market in the form of previous exchanges. They are a mixture of present subjective value and past objective value, hopelessly intermingled. Even future values, subjective as well as objective, play a part in this determination. Only when the intellect abstracts from whatever traits are to be ascribed to the exchange factor can we establish the elements which are logically required before any exchange can emerge¹⁰).

Though objective value expresses utility ratios after the exchange, it is not constituted by them. Not utility but exchange enters into its definition. Through exchange the utility ratio and the exchange ratio become equal, without becoming identified. Utility always belongs to the individual. The ratio which constitutes objective value is caused by transactions between individuals, each of them induced to enter into the exchange by his own personal utility ratio. Objective value, therefore, is not a utility ratio, nor is it a rate between subjective values¹¹); it is an exchange ratio. The traditional definition is entirely correct.

¹⁰) Ultimately it is for this reason that money cannot be said to possess marginal utility, except in an analogical sense.

¹¹) As John Maurice Clark suggests: "The Concept of Value," *Quarterly Journal of Economics*, Vol. XXIX, 1915, pp. 663 ff.

The fact that value is a quantitative concept¹²⁾ causes no inconvenience as long as "quantitative" is not interpreted to mean a "quantity"¹³⁾. One thing cannot be a relation and a quantity at the same time, although it is possible to be a relation and also have dimensions. The difference is between having dimensions and being one. Value is not a dimension, but it can be measured, as it is a quantitative relation, a ratio¹⁴⁾. There is no need therefore to look around for a new term by which to distinguish the quantitative value concept from the ratio in exchange, a proposal made by Alvin S. Johnson¹⁵⁾ in an attempt to end "the controversy that now makes warring schools of otherwise like-minded men." The main advantage of such a distinction is supposed to lie in an explanation of behavior in crises; in a depression the ratio concept would explain the decline in prices, while the idea of subjective value is appealed to as affording a reason for the "sluggish movement of commodities"¹⁶⁾, the "value" of the goods being considered higher than the exchange ratio. But subjective value is no more quantitative than objective value, and no less relative; hence, the difficulty, if there was one, would not be solved. Once it is seen that a relative concept can at the same time be quantitative, there is no place for value as an absolute quantity.

Nor is there anything in the theory of money or in the concept of "purchasing power" which would necessitate the adoption of an absolute concept of value¹⁷⁾. Money would have no meaning outside of exchange, its very essence pointing to other goods as it is the medium for their exchange. Similarly, purchasing power connotes a relation to other goods in exchange (purchase). To be an efficient medium of exchange, money must be commensurable with all other goods. It has been argued that relationships are not measured, but only expressed. Hence, if money is to be a standard of measurement of value, value cannot be a relation¹⁸⁾. Carver

¹²⁾ Carver, "The Concept of an Economic Quantity," *Quarterly Journal of Economics*, Vol. XXI, 1907, p. 430.

¹³⁾ Anderson (*The Value of Money*, p. 6 f.) insists on calling it a quantity.

¹⁴⁾ Cf. Davenport, *The Economics of Alfred Marshall*, p. 72.

¹⁵⁾ *Op. cit.*, p. 434.

¹⁶⁾ *Ibid.*, p. 435.

¹⁷⁾ Cf. Benjamin A. Anderson, "The Concept of Value Further Considered," *Quarterly Journal of Economics*, Vol. XXIX, 1915, p. 706 f.

¹⁸⁾ Francis A. Walker, *Money in Its Relation to Trade and Industry*, p. 30 (Cited in Carver, "The Concept of an Economic Quantity," *Quarterly Journal of Economics*, Vol. XXI, 1907, p. 427). The argument is developed by Anderson, *Social Value*, p. 26.

answers this difficulty by referring to the quantitative nature of value, and concludes that

when the value of a thing is stated in terms of money... money becomes the unit of measurement as truly as a pound weight or a gallon measure are ever units of measurement¹⁹⁾.

This, however, goes too far, as was cleverly pointed out by Wicker :

Hand me a stick or a string three feet long, and, without knowing its length by "first ascertaining" it, I can at once measure [a] barn or fence, and, giving the ratio, give the measure. Hand me a United States coin containing 25.8 grains of standard gold — a dollar — and ask me to measure with it the value of something seen and known for the first time, and I shall be quite at sea in any attempt at measuring the value of the one by the other²⁰⁾.

Apparently Carver took value not merely to be quantitative, but as an absolute quantity. Expressions like "50 feet" or "50 pounds" have a positive and absolute meaning in themselves, but "50 cents" taken by itself makes no sense. No price has any meaning except within the general price system, i.e., in relation to other goods. Hence, money is a standard of measurement analogically speaking only; in reality it does manifest a relation rather than measure it.

It follows that to give meaning to price, one must translate it into terms of goods; but these have different values in different concrete economies, and comparisons can be made only by resorting to ratios.

It would be a mistake, then, to interpret the economic value of a commodity as though it were a quantity of some simple interest relation. The economic value of a loaf of bread is one thing in your economy and another in mine... it has no one amount of "absolute" economic value any more than it has any single absolute distance²¹⁾.

¹⁹⁾ "The Concept of an Economic Quantity," p. 430.

²⁰⁾ George R. Wicker, "Professor Carver's Concept of an Economic Quantity," *Quarterly Journal of Economics*, Vol. XXII, 1908, p. 647.

²¹⁾ Ralph B. Perry, "Economic Value and Moral Value," *Quarterly Journal of Economics*, Vol. XXX, 1916, p. 465.

CHAPTER VIII

UTILITY THEORY

Far from reducing values and prices to elements of utility, it appears that the utility theory aims at the elimination of the very concept of utility. Instead of permeating the economic system in its entirety, utility has finished its task at the very beginning of the theory of price. It does give us a better insight into the nature of the price but is incapable of assisting us any further in the explanation of the system of prices. Only in the fictitious economics of Robinson Crusoe would it be possible to build a logical system of production values with the help of the idea of "derived utility" ¹⁾. Such a system may find justification in itself as an all rounded consistent axiomatic system, but cannot be used in the explanation of the exchange intercourse in society, in which all values are taken from their primary condition and lose their subjectivity. Hence, this path has long since been abandoned. The motive for production in the social community is not situated in the utility of a good, but in its exchange value ²⁾, even if the production takes place for one's own consumption. It is definitely incorrect to define production as a creation of utilities (time, place, form utilities); essentially it is the creation of exchange values ³⁾. The producer is responsible for the objective quality produced, which has both utility and value. But the value factor is directive of his production ⁴⁾.

¹⁾ Cf. Peck, *op. cit.*, p. 233: "The marginist solution of exchange value... is valid only in the individual, isolated economy, where no exchanges take place."

²⁾ Cf. Charles H. Cooley, "The Sphere of Economic Valuation," *American Journal of Sociology*, Sept., 1913, p. 189.

³⁾ Kleene, in: Round Table Conference on the Relation between Economics and Ethics, *American Economic Review*, Vol. XII, 1922 Suppl., p. 197. Cf. John R. Commons, *The Legal Foundations of Capitalism*, New York, 1924, p. 43: "The important purpose of the economic factors is, not the production of things, but the production of values"; Anderson, *Social Value*, p. 189: "The actual reasoning on the basis of these utilities would not be different if they were called quantities of value outright."

⁴⁾ When Taylor insists on keeping utility as the directive element, he necessarily shifts to the concept of utility, as identified with an objective quality (*op. cit.*, p. 48).

There exists, then, no correlation between utility and scarcity (marginal utility) on the one hand and value and price on the other hand.

The recognition of and allowance for the difference between the psychological utility schedule and the objective individual schedule of price offers is now to be found in the writings of all the competent contemporary exponents of the utility theory⁵).

Haney attributes still too important a role to utility when he thinks that objective value enables us to measure utility and scarcity together⁶). Utility and scarcity crystallize in marginal utility (or subjective worth if one prefers this terminology) and remain enclosed in the primary system of value. Only as factors of ratios do they appear in the secondary system: "No price offer anywhere is expressive of absolute, but only of relative marginal utility"⁷).

Hence, the price theory and market analysis have no place for the utility terminology⁸). The production process receives no direction from considerations of utility but is led entirely by prices⁹). The income theory runs in terms of prices and becomes entirely absorbed within the theory of price¹⁰). The utility of a good and the disutility or sacrifice incurred for its production no longer conform to each other; the correspondence obtains only between its price and its costs¹¹). Money, essentially an instrument

⁵) Viner, *op. cit.*, p. 370. Cf. also Anderson, *Social Value*, p. 28; Peck, *op. cit.*, p. 211; Garver-Hansen, *op. cit.*, p. 157 f.; Persons, *op. cit.*, p. 548.

⁶) Haney, *Value and Distribution*, p. 91.

⁷) Davenport, *Economics of Enterprise*, p. 103.

⁸) Cf. Mary J. Bowman and George L. Bach, *Economic Analysis and Public Policy*, New York, 1943, p. 36: "Prices reflect not how much consumers 'need' goods and services"; also, Edie, *op. cit.*, 2d ed., New York, 1932, p. 481 Note: "It seems necessary to go beyond the utility methods of analyzing value." How John Bates Clark would have laughed at that word "beyond"! Edie himself is not consistent when he ascribes utility to productive goods (*Ibid.*, p. 163).

⁹) Cf. Ely, *Outlines*, 6th ed., p. 213; Peck, *op. cit.*, p. 211; also Veblen, *The Instinct of Workmanship*, p. 217: "Workmanship... comes to be rated in terms of salesmanship."

¹⁰) Bye, *Principles of Economics*, 4th ed., p. 615.

¹¹) Brown, *op. cit.*, p. 213; Monroe, *op. cit.*, p. 14; Bye, "The Nature and Fundamental Elements of Cost," *Quarterly Journal of Economics*, Vol. XLI, Nov., 1926, p. 34; Knight, "Marginal Utility Economics" in: *The Ethics of Competition and Other Essays*, p. 154. Cf. John Bates Clark, *The Distribution of Wealth*, p. 390: "There is, therefore, no equivalent established between the disutility of such work and the utility of its product." Here lies one of Clark's reasons for trying to formulate the concepts of "social utility" and "social cost of acquisition." (See Chapter IX.)

of the market, possesses no utility, but only a price¹²).

In a review Schumpeter recently expressed his approval of the old utility analysis not being applied to the consumer: "Stigler shows once more how well we can get along without it"¹³). This statement is somewhat misleading because it presents the utility theory as something entirely superfluous for economic theory. But it holds true with regard to the price theory in which utility does not and should not play a role¹⁴). Davenport seems to have been the first one to observe this; he did not drop the utility consideration merely because he thought it possible to build a price theory without it, but he demonstrated conclusively that it was logically impossible to do so with it.

It is *only* when a quantitative relation of utility is asserted with reference to a commodity *outside* the series — when utility becomes relative — that marginal utility, so-called, can express itself in price limits or become relevant to the phenomenon of exchange¹⁵).

To say that Davenport "assumes prices and makes marginal utilities and disutilities depend upon them"¹⁶) is only true if one is speaking of the order of cognition. Here price is first and leads us logically to what has to be presupposed in order to make price existent. Marginal utility, according to Davenport, cannot be regarded as finding its expression in price. But that does not mean that it depends on price, as if the price were the cause of marginal utility. Price is and remains the effect and is to be traced not to marginal utility, but to the ratios of two marginal utilities. Once established it may, and usually will, influence these ratios and thus be the cause

¹²) All this Davenport expresses emphatically (*Economics of Enterprise*, p. 104): "There is no possibility of finding, either in the demand price of any individual or in the market price, any expression or measure of utility or marginal utility. Utility at large, or social utility, therefore, is sheer nonsense for all purposes of the price analysis."

¹³) Joseph Schumpeter, Review of: Stigler, *The Theory of Competitive Price*, *American Economic Review*, Vol. XXXII, 1942, p. 844.

¹⁴) Cf. Edie, *op. cit.*, 2d ed., p. 481: "It seems necessary to go directly to the heart of the pecuniary or business process of valuation. When this approach is taken, the emphasis falls upon the prospective profits and the rate of capitalization."

¹⁵) Davenport, *Value and Distribution*, p. 314 (italics supplied). Cf. *Economics of Enterprise*, p. 97: "Any homogeneity of utility, any attempt, for the purposes of the price problem, to force different men into any other common denominator than this very serious one of price-offer, is possible only at the sacrifice of all clear thinking."

¹⁶) Haney, *History of Economic Thought*, 3d ed., p. 733.

of a change in their magnitude. Thus all we know about these ratios is revealed to us in the price, even though we must assume them logically prior to any price.

Veblen's criticisms also contributed much to eliminate considerations of utility from the price theory but he founded his arguments not on the intrinsic and logical necessity of this exclusion but on the absence of realistic interpretation of actual behavior under which any explanation in terms of utility labors ¹⁷⁾).

The ancient paradox between value in use and value in exchange points in this same direction. It can be solved only by viewing value in exchange as the ratio of the two exchangeable goods regardless of their absolute utility. Utility theory is needed in economics for the purpose of explaining this process of the elimination of utility.

We simply cannot evade that fundamental problem of how our likes and dislikes get into their current shape. And if you are going to attack that problem, then you have to proceed along the lines of marginal analysis ¹⁸⁾).

While enumerating the merits of the utility doctrine, Viner stresses the explanation of the phenomenon of the declining demand curve, and considers it to be the contribution of this particular school of thought ¹⁹⁾. One may hesitate to accept diminishing utility for the complete explanation of this problem without denying that it unquestionably constitutes one of the contributing factors ²⁰⁾.

But the solution of the difference between value in use and value in exchange is entirely the property of the utility theory. It alone can be credited with a satisfactory explanation. No other theory has been able to take its place here ²¹⁾. The construction of the concept of subjective value with the accompanying clarification why and how utility is eliminated forms a contribution which alone justifies the existence of the theory. The doctrine of imputation has to be dropped because it has become superfluous, but the utility theory itself cannot be dropped as long as we need a logical foun-

¹⁷⁾ Veblen, "The Limitations of Marginal Utility," in: *The Place of Science in Modern Civilization*, p. 250.

¹⁸⁾ Wesley C. Mitchell, *Lectures on Types of Economic Theory*, Vol. II, p. 531.

¹⁹⁾ Viner, *op. cit.*, p. 387.

²⁰⁾ See Chapter II.

²¹⁾ Cf. Garver-Hansen, *op. cit.*, p. 158: "The utility theory, which includes the principle of diminishing utility, is the only reasonable explanation of the fact that many of the necessities of life sell at low prices and command only a small portion of the income of even the wage earner."

dation for the notion of exchange value. "For the purpose of providing an analysis of the logical process of valuation... orthodox theory is indispensable" ²²).

Haney's criticism of Cassel's rejection of marginal utility is pertinent here. He designates it as "a frank attempt to limit economics to an empirical dealing with exchange ratios among objective quantities, merely taking utility and subjective value for granted." But this amounts to begging "the whole question of economic life, value":

By assuming value to start with, and thus evading the problem of its cause, he is estopped from dealing with its determination. The result is a system of business mathematics, not a social science ²³).

Here too lies the reason why Knight's conception of utility must be rejected. To make relativity (as defined by him) the essence of utility means to correlate it with limitation ²⁴). Hence follows his condemnation of any attribution of utility to "free" goods, goods that exist in superabundance. He deems this "a pernicious error," since "such goods have no causal relation to conduct and no place in a science of economics" ²⁵). But this is exactly one of the points which the theory set out to explain; hence, this approach offers only a pseudo-explanation which rests on arbitrary definitions and distinctions ²⁶).

The modern method of indifference curves too falls short of a

²²) Edie, *op. cit.*, 2d ed., p. 141.

²³) Haney, *History of Economic Thought*, 3d ed., p. 602 f.

²⁴) See Chapter I, p. 13 f.

²⁵) Knight, *Risk, Uncertainty, and Profit*, p. 61. In a previous article ("The Concept of Normal Price in Value and Distribution," *Quarterly Journal of Economics*, Vol. XXXII, Dec., 1917, p. 67) he spoke of "the pernicious concept of utility dragged into economics by Jevons and the Austrians."

²⁶) Knight himself shows that he is able to conceive of "absolute" utility when he composes a "net utility curve" for a boy who picks berries. He combines a desirability curve and an exertion curve for the purpose (*Risk, Uncertainty, and Profit*, p. 68). Admittedly he has to measure one utility by another, but he needs both in their absolute state before he can start measuring. Recently Knight has given the traditional interpretation of diminishing utility; in his article, "Realism and Relevance in the Theory of Demand" (*Journal of Political Economy*, Vol. LII, 1944) he speaks of the "interpretation of the theory of diminishing incremental utility, in more or less the orthodox form," and adds: "This is the view advocated in this paper" (p. 302). He even defended it against attacks: "There seems to be no question of the validity of the quantitative (cardinal) character of satisfaction changes... and it is clearly useful for general exposition." ("Immutable Laws in Economics," *American Economic Review*, Vol. XXXVI, May, 1946, p. 99 f.)

solution because it does not touch the fundamental problem. Far from being able to dispense with utility theory it stands itself in need of a logical foundation for the notions of indifference and substitution, which it can find only in utility. The indifference doctrine accepts the existence of prices, incomes, and exchange possibilities from the outset; it is essentially an equilibrium theory. As such it endeavors to give an insight into the price system, but it has nothing to say about the essence and the meaning of price nor about the relation between utility and price.

The utility theory in this manner becomes limited to a very small part of the value and price theory. It does not give the last word about any concrete problems, nor does it offer a complete theory of price.

The conception of marginal utility, as a key to the relation between prices and wants, embodies a vital and important proof. But it does not embody all we need to know of the relation of want to prices²⁷⁾.

We may regret that the concepts of value and price cannot be reduced to utility, but that is impossible and the history of the doctrine of marginal utility has proved that clearly once and for all. All the difficulties and objections which have been proffered in connection with the doctrine of imputation and the attempt to translate utility theory into a price theory disappear automatically. Constructive criticism, putting a finger on weak points in the system, has succeeded in preventing a confusion between utility curves and demand curves in the modern version of the doctrine. The opinion that the price expresses the marginal utility of a good to different persons or even of different goods to society as such has become obsolete. Utility is still often expressed in terms of money, but mostly in connection with studies of consumption, where it can be permitted²⁸⁾, only rarely in connection with the logical foundation of exchange²⁹⁾.

²⁷⁾ John Maurice Clark, "Economic Theory in an Era of Social Readjustment," *American Economic Review*, Vol. IX, 1919 Suppl., p. 285. Cf. Suranyi-Unger, *op. cit.*, p. 338: "It is not the theory of marginal utility that has outlived itself, but only the attempt to found upon it alone the entire system of economic theory."

²⁸⁾ The use of money as a universal means of exchange influences the subjective utility ratios, and, moreover, for the individual there exists a correlation between utility and value which, though not exactly, can be expressed in money with sufficient accuracy for the purpose. Cf. Garver-Hansen, *op. cit.*, p. 147.

²⁹⁾ See Viner, *op. cit.*, p. 383.

Other difficulties arise from the misunderstanding which sees in the utility theory a genetic description of the valuation process instead of simply a logical basis for it. Occasion for such criticism has at times been given by authors who present this logical process in terms of efficient causality³⁰). The genetic process is of no interest to the theory of value, it has only historical importance. The process of causation should be brought up in a study of the determination of the magnitudes of exchange ratios. The logical analysis is made only for the purpose of making the exchange ratio acceptable as a concept, by investigating and defining the elements which constitute it in reality³¹). The power which causes a motion does not tell us what motion is; it only enables us to explain the speed of that motion by referring to the magnitude of the impact. And knowing the parents of a certain man we may see a reason for his being white or colored, but that knowledge does not help us in answering the question: What constitutes a human being?

The realistic value of such a logical analysis does not depend on the presence or absence of "marginal utility" in reality. Science itself has evolved this concept and construed it for its own purposes³²). It suffices that it was derived from realistic data and that it remains in indirect contact with reality. For the marginal utility theory this contact exists in the immediate experience of the scarcity

³⁰) E.g. Edie, *op. cit.*, 2d ed., p. 151.

³¹) Cf. Kiekhofer, *op. cit.*, p. 456; Anderson, *Social Value*, p. 134. All the theories which trace value to cost exclusively base their conclusion on the inference from observed facts that cost of production causes value to appear. Thus Macvane shows how in a new discovery the price is determined by cost, not by marginal utility — tentatively at first, then production increases, value declines and as a result a change occurs in the marginal utility ("Marginal Utility and Value," *Quarterly Journal of Economics*, Vol. VII, 1893, p. 283). This brings us nowhere, as such reasoning looks in the wrong direction. A remarkable misconception of recent date is to be found in the textbook by Ault and Eberling (*Principles and Problems of Economics*, p. 192):

The marginal utility theory of value, which holds that value is measured by the utility of the marginal product, prevailed in academic economic circles at the opening of the present century. However, in business, industrial, and financial circles cost of production was still universally believed to be the determinant of value.

Such a statement could be compared with that of a physicist asserting that in academic circles pure water is considered to be composed of hydrogen and oxygen, but that in practice it is obtained by distillation. Not only did the relative element in value escape these authors, but the very meaning and purpose of the value theory has not been conceived by them.

³²) One may compare the concept of marginal utility with that of "specific gravity" and "valence" in the physical and chemical sciences.

of goods and the mediate datum of diminishing utility which in turn is connected with the immediate data of the existence of human wants, the declining demand curve and the process of introspection as elaborated upon in Chapter II.

There exists an inclination to connect marginal utility directly with reality; this trend appears in the writings of even the best and most distinguished theorists. Perhaps it should be attributed to the American mentality which idolizes whatever is "practical." It goes without saying that such statements can be disposed of as mere assertions with no trace of any proof:

The total desirability is of only theoretical importance, while marginal desirability is of great practical importance... Marginal desirability enters daily into practical life³³).

The marginal desire (originally the least intense of the desires now gratified) now marks and expresses the actual value of each of the other units of the stock³⁴).

If these assertions were true, no controversy could possibly exist about the validity of the theory of marginal utility. The difficulty against the theory is concealed in the fact that reality offers us only the concept of value with a few suggestions which point in the direction of utility. With their aid, we are able to reason to the concept of marginal utility as a factor which is logically required in the explanation of the basis of exchange³⁵).

The objections of a psychological nature similarly arise from a

³³) Fisher, *Elementary Principles of Economics*, p. 285.

³⁴) Fetter, *Economic Principles*, p. 38 (italics supplied). Cf. also Davenport, *Value and Distribution*, p. 311: "Marginal utility stands for an actual fact in economic experience."

³⁵) Exception must be taken to Young's observations on this point ("Some Limitations of the Value Concept," *Quarterly Journal of Economics*, Vol. XXV, 1911, p. 416): "Marginal utility, like price, may be said to be a relatively simple concept, derived from the concrete facts of experience. Value, on the other hand, is an abstraction of a very loose and indefinite sort." Price, value, and marginal utility are equally abstract concepts, because they are general. Price prescind from the individuality of any particular price, value prescind also from the possibility of expressing value in terms of any particular good, and marginal utility goes beyond them in making abstraction from the complications of exchange. Marginal utility, then, is a simpler concept because it is more abstract, value is more complicated because it adds the notion of relativity, while price is the most complicated of them all since it involves the designation of a common denominator. When Young called value "an abstraction of a very loose and indefinite sort" he must have had in mind the popular usage of the words, not the definite meaning given to it in economic analysis.

misunderstanding of the purpose of the theory. Jevons' psychology is unquestionably out of date, but it does not belong to the theory itself. He attempted to give a psychological explanation of the phenomenon of diminishing utility. But such an explanation is unnecessary; even if different psychological schools should offer a radically different interpretation, the phenomenon itself remains unimpaired. The only objection which offers any difficulty is that of the weak scientific basis for the principle. Diminishing utility as such is not taken from experience. Neither can it be isolated for the purpose of a separate analysis, since utility remains a factor in a ratio, both terms of which are unknown³⁶). But we are compelled to accept it by the logical necessity of our process of thought if we do not wish to remain entangled in the utility-value paradox. Strictly speaking, it would be sufficient to postulate that the difference between utility and sacrifice diminishes with an increase in the quantity of a good³⁷). But we can imagine so many cases in which the use value diminishes even if there were no costs, that there is sufficient reason to accept it without appealing to the notion of cost at this stage of the discussion. And these examples do not necessarily find their origin in the dining room; we may think of clothing (ties, shirts, socks, shoes) and shelter (a number of house), furniture, silverware, etc.³⁸).

Another objection which requires attention consists in the accusation that the utility doctrine is prejudiced in favor of the capitalistic organization of society. This accusation could be refuted by an argument "ad hominem" since the same doctrine has been used by Socialists for their own purposes³⁹), but it seems better to enter

³⁶) Applying this to Viner's argument (Chapter II, pp. 17 ff.) it will be clear that, even if it possessed compelling force, it cannot lead us beyond accepting a decline in ratios. Patten seems to be of the opinion that the principle of diminishing utility is not susceptible to deductive proof, for the reason that there is no way to measure the intensity of human pleasures. (James L. Boswell, *The Economics of Simon Nelson Patten*, Philadelphia, 1934, p. 56.) This reason, however, can lead only to the rejection of any inductive proof, since the measuring necessarily applies to particular data and not to any general statements from which the law would have to be deduced. Viner's proof has all the qualities of a deduction, but is not conclusive as is shown in the text.

³⁷) Knight, (*Risk, Uncertainty, and Profit*, p. 68) describes such a "net utility curve."

³⁸) Cf. Taussig, *op. cit.*, 4th ed., p. 108 f.; Garver-Hansen, *op. cit.*, p. 148. For further discussion, see the Appendix on Consumer's Surplus, pp. 103 ff.

³⁹) Cf. Mitchell, "Wieser's Theory of Social Economics," *Political Science Quarterly*, Vol. XXXII, 1917, p. 110 f.: "The utility theory has been adopted as

into it a little more deeply. The objection justly states that John Bates Clark presented his theory of imputation as a justification of the existing method of the distribution of income: each factor of production, according to him, receives exactly so much imputed to it as it contributes to the production of "utility" ⁴⁰). The recognition of production as a creation not of utilities but of exchange values removes the ground for this objection: the correlation between utility and value has been removed. Of course, the temptation exists to pass judgment on the absence of this correlation, to approve or to disapprove it ⁴¹). But the utility theory as such cannot judge. It only endeavors to explain the fact of this absence logically without considering its desirability. It does not state that the diverse factors of production are treated justly if their income equals the exchange values produced by them, neither does it pronounce on the injustice which this process of distribution entails by not taking into account any utility factor.

The utility doctrine, therefore, is simply an explanatory theory which never touches on questions of justice or even desirability. Nowhere the analysis deals with questions of class or position and at no point in the entire process of thought is there any place for a defense of an existing or a desired order.

Another example of moralizing sometimes occurs in connection with the principle of diminishing utility. On the basis of that principle, Taussig tries to disapprove of speculating and betting: the winner acquires less utility from his gain than is given up by the loser ⁴²). Ely used the same argument in the first edition of his *Outlines* and even extended it into a general principle: "That transfers of goods are justifiable only when aggregate utility is thereby increased" ⁴³). To defend this thesis it is necessary to assume that the utility of different persons can be compared, and this is something which the utility doctrine explicitly rejects. Also, both authors apparently overlook the fact that the loser may obtain

a substitute for Marxism by one set of socialists and decried as a covert defense of the established order by another set."

⁴⁰) *The Distribution of Wealth*, p. 4. The same position appears in Taylor, *op. cit.*, pp. 520 ff.

⁴¹) Anderson at times seems to blame the theory for this absence! (*Social Value*, p. 28). Also, Peck, *op. cit.*, p. 211.

⁴²) Taussig, *op. cit.*, 4th ed., p. 121: "Gambling between persons of equal income always brings an economic loss... This follows directly from the hedonistic calculus — from the principle of diminishing utility."

⁴³) P. 128; it has been dropped in the later editions.

so much utility (pleasure) from betting and speculating as to esteem it greater than his loss. Whether he is prudent or wise in doing so the utility theory does not say.

From the objections which have been made against the so-called principle of rationality the utility theory has nothing to fear. With the expulsion of the pleasure-and-pain psychology the necessity to postulate the possibility of an exact utility calculus disappeared. As we have seen, it is sufficient for the theory in this phase to rely on mere preference⁴⁴). This preference may be entirely arbitrary and irrational, egotistic or altruistic, with or without motivation, it makes no difference for the logical development of the argument.

This postulate of rationality should not be confused with the attempt made by science to give a rational explanation of any phenomenon. Science must try to find such a logical, rational explanation, if it is to be a science. The question is whether in order to give such a rational explanation it is required to accept as a principle that man always thinks and acts rationally. Can we make his behavior logically and rationally acceptable only by supposing and postulating his rationality in every act? At times a rational explanation can be given by referring to man's inconsistency and lack of rationality.

Knight overlooks this distinction when he wants to see the conclusions of the theory in general only conditionally accepted, that is, under the condition that, and in so far as, man in his economic life is rational⁴⁵). If economic theory were thus limited, it would be better to abandon it entirely for it would be no more than a formalistic play with concepts⁴⁶). Such a system can be very ingenious and logically consistent, but it severs all contact with reality. A scientific postulate is justified only when, on the one hand, it is needed to make the process of thought logically unobjectionable and, on the other hand, it can neither be proved nor refuted by the facts.

At this point Veblen and the Institutional School have been of

⁴⁴) Bye, "Some Recent Developments in Economic Theory," in: *The Trend of Economics*, p. 278: "The rationalistic assumption of human conduct was never necessary to economic theory; it was simply dragged in because Hedonism was the dominant philosophy at the time when the earlier economists wrote."

⁴⁵) Knight, *Risk, Uncertainty, and Profit*, p. 52.

⁴⁶) For this reason Knight feels inclined to drop the rationality postulate but he fears that without it the validity of the theoretical conclusions is impaired; see "Exchange," in: *Encyclopedia of Social Sciences*, Vol. V, 1931, p. 666.

great service to economics by their insisting that like any social science it must accept man as really human without completely rationalizing and normalizing him ⁴⁷). How profoundly the opinion had taken root that utility theory and rationality go together can be seen in the following quotation from a non-"Orthodox" economist :

If it is emphatically stated that diminishing utility is a fact significant in the determination of demand and price only to the extent that purchasers are highly efficient calculating machines, keeping constant tab on the subjective values both of goods and of money, the conventional analysis may continue to be of some service ⁴⁸).

That intimate connection between them did not exist just as was the case with hedonistic psychology and utility theory. Knight himself seems to retrace his steps when he says :

It is evident that the rational thing to do is to be irrational, where deliberation and estimation cost more than they are worth. That this is very often true, and that men still oftener (perhaps) behave as if it were, does not vitiate economic reasoning to the extent that it might be supposed ⁴⁹).

But the reason why the fact of man's irrational behavior does not vitiate the theory lies not in the neutralization of the effects of this behavior on the market, which is the explanation offered by Knight ⁵⁰), but in the circumstance that rationality is really not supposed in the theory.

It is even unnecessary to accept a sort of moderate rationality, as Meyers does :

Given a choice among several lines of conduct, a rational individual will try to select that course of action

⁴⁷) Cf. Homan, "Institutionalism," in: *Encyclopedia of Social Sciences*, Vol. V, 1931, p. 388.

⁴⁸) Albert B. Wolfe, "Three-Dimensional Diagrams in Illustration of Consumers' Demand," *American Economic Review*, Vol. XV, 1925, p. 228.

⁴⁹) Knight, *Risk, Uncertainty, and Profit*, p. 67, Note 1.

⁵⁰) *Ibid.*, p. 67, Note 1: "These irrationalities tend to offset each other... the market behaves as if men were wont to calculate with the utmost precision in making their choices. We live largely, of necessity, by rule and blindly; but the results approximate rationality fairly well on an average." For all of which no proof is given.

which seems to him to promise either the greatest amount of satisfaction or the least amount of dissatisfaction ⁵¹).

All that is required is to assume that no one choosing between two offers elects the one good because he prefers the other, or as Schumpeter expresses it:

All we need in order to derive the proper restrictions on households' behavior is a consistency postulate: if I prefer a set of goods A to a set of goods B, I must not at the same time prefer B to A ⁵²).

Against such a postulate one can hardly object: it amounts practically to a tautology. It would be possible to reduce Meyers' postulate to this same tautology by interpreting "satisfaction" in a wide sense so that it becomes descriptive of all possible motives that bring about a preference in the human beings. To give a rational explanation of the behavior of the consumer, this postulate suffices, even though it does not imply that his behavior itself is rational ⁵³). This behavior may be coolly calculated, or traditional, almost unconscious and caused by routine, influenced by the past or by the environment or by future plans and expectations, or merely dependent on personal whims and impulsive ideas; all this is a matter of indifference to the development of the argument. An extreme case may be cited from the textbook by Garver and Hansen:

If the buyer should purchase at random, paying any price that was asked, or if he should never stop to consider what any good cost him in terms of other goods given up, or if he should act blindly and on mere impulse, then for economics his conduct would be irrational. Under these conditions his choices of goods would have nothing to do with utility. In place of making his choices on the basis of comparative utilities he would make them on no basis whatever, and utility would be irrelevant ⁵⁴).

⁵¹) Meyers, *op. cit.*, p. 5. According to him, this is "one of the most important assumptions underlying all economic reasoning."

⁵²) Review of: Stigler, *The Theory of Competitive Price*, *American Economic Review*, Vol. XXXII, 1942, p. 844.

⁵³) Cf. Deibler, *op. cit.*, p. 218. Deibler does not delineate this preference sharply. He asserts that the buying of an automobile rather than a house constitutes a sign of a preference for the automobile. (*Ibid.*, p. 217.) This is true only when the automobile and the house are equally high in price. Again, the preference is a question of ratios not of absolute magnitude.

⁵⁴) *Op. cit.*, p. 154.

Such conduct may be irrational, but it would still be "economic." It has a bearing on prices and therefore on the allocation of scarce means. Admittedly, it should be called exceptional, as one would expect the general run of people to behave in a different manner. Yet to discard such cases as irrelevant to the science of economics shows a lack of logical consistency. No astronomer would want his science to neglect the study of stray comets or meteors which at times disturb the normal equilibrium of the heavens. And, just as these stray bodies are subsumed under Kepler's laws by the astronomer, so can stray (irrational) economic behavior be analyzed from the angle of utility. For utility is a person's own concern: his personal want or need or whim is the only norm. If he prefers not to consider his "real needs" in favor of blind impulses, economics must let him do so, at least inasmuch as it restricts itself to mere explanatory theory.

The principle of self-interest which is related to the postulate of rationality is equally superfluous. In so far as it is universally valid, it coincides entirely with the tautological postulate of preference which does not exclude altruism. Sometimes a person receives more satisfaction from the giving of an alms than from the acquisition of a certain good. His "self-interest" in such a case urges him to charity, not because he expects to be better off after this altruistic deed as far as his material welfare is concerned, but simply and solely because his preference leads him to choose that which gives him more gratification⁵⁵). It may be conceded that such an interpretation involves a slight distortion of the notion of self-interest, but it is untenable in the traditional sense as it does violence to the facts of reality⁵⁶). Neither is there any advantage in retaining this idea of self-interest in a mitigated sense, as Haney attempts:

In order to make a transaction economic, it is only necessary that the parties thereto should not be primarily interested each in the welfare of the other⁵⁷).

By far the great majority of transactions are ruled by this sort of selfishness, but to exclude from economics all altruistic actions is an arbitrary measure; and it is also entirely superfluous. The

⁵⁵) Dickinson, *Economic Motives*, p. 251: "The agent has simply bought the satisfaction of his charitable want by foregoing his want of wealth."

⁵⁶) See Walton H. Hamilton, "Acquisition," in: *Encyclopedia of Social Sciences*, Vol. I, 1930, p. 422.

⁵⁷) In: Discussion on the Psychological Basis for the Economic Interpretation of History, *American Economic Review*, Vol. IX, 1919, Suppl., p. 320.

postulate of preference can embrace both kinds of action and be applied to all cases with logical consistency without assuming anything that resembles either rationality or selfishness⁵⁸). When the assumption of rationality suggests itself in the application of general laws to concrete situations it can always be made. What John Maurice Clark once remarked with regard to static law is equally valid in this matter :

Students of economics still seem to prefer treating the ellipse as an exception to the circle rather than the circle as a simple form of ellipse. We are too easily content with treating inconvenient facts as exceptions to static law, rather than earnestly undertaking to unearth the laws that govern these facts — laws which must contain the static law as the ellipse contains the circle⁵⁹).

In the same way the supposition of preference contains that of rationality and in general all those which restrict the liberty of the economic behavior. Only in the interest of forecasting do we need to make such assumptions, not for the sake of explanatory theory. When made, such assumptions will count on a certain degree of rationality or selfishness among the masses, but not always. Calculations with regard to the establishment of a Red Cross Center, for example, will rest on the degree of charity and patriotism which is expected in a certain neighborhood. Other examples can be found in considerations involved in building a private school, a church, in the selection of the type of entertainment for a theater, in starting a gift shop or a store for religious goods, and so forth. The norm of rationality or selfishness would relegate such institutions into the darkness of the non-economic realm, though both the foundation and the operation of them enter into the field of economics just as much as a tavern or a grocery store. For they, too, are concerned with the allocation of scarce means in the interest of human ends.

⁵⁸) "For theory it is irrelevant *why* people demand certain goods : the only important point is that all things are demanded, produced, and paid for because individuals want them. Every demand on the market is therefore an individualistic one, altho from another point of view, it often is an altruistic or a social one." (Schumpeter, "On the Concept of Social Value," *Quarterly Journal of Economics*, Vol. XXIII, 1909, p. 216.)

⁵⁹) John Maurice Clark, "A Contribution to the Theory of Competitive Price," *Quarterly Journal of Economics*, Vol. XXVIII, 1914, p. 747.

CHAPTER IX

SOCIAL UTILITY

The foregoing pages show that utility theory is by no means a thing of the past in the United States. Neither Institutionalism nor Indifference Analysis have taken its place, even though they reduced its importance. Most of the textbooks continue to examine value and doing so arrive at the notion of utility. Without reviving the economics of Robinson Crusoe or the "homo economicus," individual utility is still considered to lie back of exchange value. Individualistic, rationalistic, and hedonistic traits have been banned, but the essence of the old utility theory remains. Its backbone consists in the relative concept of value.

Because of its historical importance we must devote a chapter to the attempt of J. B. Clark and one or two other writers to establish an absolute value concept on the basis of social utility. This attempt impressed Roche-Agussol in such a manner that he felt justified in characterizing the entire American branch of the Marginal Utility School as giving a social meaning to the utility doctrine¹⁾. But, after what has been said, this must be labeled unwarranted and false.

For reasons which seem to lie outside economics proper, Clark wished to arrive at value as an absolute entity. But realizing that it was only possible to reduce value to a ratio of individual utilities, and not to absolute individual utility, he turned toward the construction of his idea of social utility. A good is in reality a bundle of useful qualities. First, we can in most goods discover several attractions, for example, recreation, pastime, and wholesome instruction in one and the same book; pleasure and time-saving in work in an automobile; etc. And, secondly, these qualities can be present in the good in greater or less perfection: one canoe can be speedier than another, it may be of a more attractive shape, etc. All these factors are subject to a separate estimation by the indivi-

¹⁾ *Op. cit.*, p. 87.

dual, and as a result are separately priced in the market. Hence, the price is a composition of many "part prices," each of which must be explained separately by considerations of marginal utility. But only one of those part attractions is influenced by the marginal utility of one certain buyer; on the other factors he has no influence. Suppose someone wishes to buy an automobile and his want for transportation is so intense that he would be willing to pay \$ 6,000 for one car. This one car would satisfy his want to such an extent that he would be willing to spend only \$ 400 for a second car. But it appears that he is able to buy a good automobile for \$ 2,000. His estimate of \$ 6,000 has no influence on the price. But the difference between his evaluation and the actual price may induce him to buy an automobile which costs more because it is larger or more powerful than the car of which he had thought originally; perhaps he will prefer a car which features a "fluid drive." Not his primary want for transportation but such a secondary item will constitute for him the "marginal part," that quality which he esteems just high enough to be willing to pay the difference in price. To the price of all the other parts, his estimate is irrelevant: he is supra-marginal. Other buyers will influence the part prices of those separate items:

A bundle, as a whole, is never a final unit of any one's consumers' wealth; but each element in it is a final utility to some class, and it is that class only whose mental estimate of it fixes its price²⁾.

Only in this manner, according to Clark, can the low price of many goods be explained. Especially luxury goods would cost much more than they actually do if they had to be valued as a whole³⁾.

The question now is how all those individual estimates are brought together and how do they compose the price of the whole good? That happens in and by the market, by collective action. Many expressions of Clark, however, cannot fail to make the impression that he does not conceive this collective action as a mere mechanical addition or combination of individual estimates:

The motives are individualistic, but the resultant is collective. Each man pursues his own interest; but as

²⁾ *Distribution of Wealth*, p. 241. Cf. *Essentials of Economic Theory*, p. 237: "In the case of every article, several grades of which are sold, there is one component element or one utility which is worth to the buyer exactly what it costs, while the others afford a consumers' surplus."

³⁾ *Essentials of Economic Theory*, p. 109.

the outcome of his activity, society acts as a solitary man would act under the influence of the law of diminishing utility ⁴).

Again from the manner in which the argument is developed the only conclusion that can be derived is that the price gives expression to the utility of a good not to one person, but to all the consumers, taken collectively, and in some way or other brought in relation to one another mechanically. Clark, however, goes beyond this when he says :

The price of a thing gauges its importance, not to one man, but to all men, as *organically* related to each other ⁵).

Here he makes a leap in the argument which is not justified by the premises : from mechanical to organic, from extra-individual to supra-individual. The valuation of the individual consumer failing to offer an explanation, it becomes necessary to look for one by introducing social elements. That the action of several individuals as such might offer a possible solution is overlooked ; it is :

Society, not the individual, that makes the estimate of utility which constitutes a social or market valuation ⁶).

Clark's reasoning thus leads to an identification of exchange value with social utility ⁷). But nowhere did he define this concept of social utility sharply. In one passage he calls it merely a "synonym of value." He himself feels that "it is now necessary to give definiteness of meaning to the word 'social.' There is such a thing as a unit of social improvement or detriment..." but he proceeds to discuss the problems of a standard of measurement of social improvement without giving any more definiteness of meaning ⁸).

⁴) *Distribution of Wealth*, p. 46. Cf. *Philosophy of Wealth*, p. 82 : "Market value is a measure of utility made by society considered as one great isolated being."

⁵) *Distribution of Wealth*, p. 378 (italics supplied); Cf. *Ibid.* : "Into the mysteries of distinctly *social* psychology, therefore, the measuring process that gauges value must be traced." (author's italics).

⁶) *Philosophy of Wealth*, p. 83. Clark in his *Distribution of Wealth* has developed far from the theories which he defended in his *Philosophy of Wealth*, but on this point he did not change ; in *Distribution of Wealth* (p. 378) he himself refers to his previous expositions on "social utility."

⁷) Taylor follows Clark also in this respect : "Logically, we must look on the general demand schedules as disclosing the true relative social importances of different wants and different goods." (Taylor, *op. cit.*, p. 310.)

⁸) *Distribution of Wealth*, p. 378.

Is this social utility a quality of the good or a relation founded on a quality in virtue of which the good satisfies a social want? And is this social want proper to society as a body with a life of its own, or only to society in general, i.e., to the members of society in their personal, individual existence? The force of the argument does not seem to bring us beyond this latter sort of want, but Clark's words make the impression that he speaks of the former kind. The transition in the course of the argument occurs at the point at which the individual is designated as an agent of society. It may well make us recall Adam Smith's "invisible hand": "the men who do the measuring are the agents of society controlling their parts of the whole market for consumers' wealth"⁹).

It is a metaphysical, or rather a meta-economical bent which urged him to make this leap. The system of free values appeals to Clark as an ideal, it represents the best organization of society. Just as elsewhere he defends the free distribution of income on the ground of justice, so does he here sustain the free formation of values on grounds of social utility. Exchange value, individual and arbitrary in its origin, and resting on pure personal preference, is elevated and made into a supra-individual category instead of being merely extra-individual. Clark's concept of social utility, therefore, whatever its contents, belongs to the normative branch of economics, not to its explanatory part and certainly not to the value theory.

Seligman took his idea of social utility from Clark, but divested it of all meta-economical elements. The organic collectivity plays no part in his considerations; they remain purely positive¹⁰). The social factor does not come from a society with a personality and utility considerations of its own; it is to be sought in the fact that there are other persons who have valuations and through them influence the individual utility schedule¹¹). How this happens Seligman describes as follows:

⁹) *Ibid.*, p. 245.

¹⁰) Anderson's failure to see any difference in the logical construction of the concept of social utility of these authors must be attributed to Clark's vagueness (Anderson, *Social Value*, p. 173). But Clark ascribes to his notion so many qualities which simply cannot be reconciled with Seligman's theories that we are forced to conclude to a fundamental difference in the logical structure of their concepts.

¹¹) Knight is not justified in referring to Seligman as "a particularly glaring instance of the organism fallacy." (*Risk, Uncertainty, and Profit*, p. 85 Note.)

While it is of course only through the mind of the single individual that the comparison between wants and satisfactions is made, and that the concept of utility emerges, not only is the utility of an economic good to each individual affected by his recognition of its utility to other members of the group, but the marginal utility which is of significance in value depends upon the relative number of the group with the given intensity of wants. In this sense we can speak of a social marginal utility¹²⁾.

In other words, even though a locomotive has no utility for me, I still attribute to it an indirect utility because I can sell it¹³⁾. Only because the locomotive possesses utility for others does it possess utility for me. Utility, therefore, depends on several individuals, not on one alone; it is a social factor which is "made up of a combination of individual utilities"¹⁴⁾. The process of combining these individual utilities is explained, as by Clark, by means of an appeal to the bundle of useful qualities present in a single good. No article as a whole is ever a marginal unit for a definite individual or group of individuals: each of the different utilities in every commodity represents a marginal case, but for different persons or different groups of persons. The combination of all these marginal cases brings us to social utility which, in turn, expresses itself in value:

Value then is the expression of the social marginal increments of utility which are bundled together or united in anything, and each of which is marginal to a different class¹⁵⁾.

The same idea combined with the reference to Clark's bundle of utilities is to be found in Seager's works:

The value of any good which is made up of a bundle of qualities is the result of a collective rather than of an individual calculation of marginal utilities¹⁶⁾.

¹²⁾ "Social Aspects of Economic Law," in: Seligman, *Essays in Economics*, New York, 1925, p. 307.

¹³⁾ Seligman, "Social Elements in the Theory of Value," *Quarterly Journal of Economics*, Vol. XV, 1901, p. 324.

¹⁴⁾ Seligman, *Principles of Economics*, p. 180.

¹⁵⁾ *Op. cit.*, p. 186. Following a similar trend of thought, Seligman arrives at the construction of such concepts as "social pleasure" and "social pain"; they are "pain and pleasure of the individuals collectively considered, that is, the pain and pleasure of the group." ("Social Aspects of Economic Law," in: *Essays in Economics*, p. 308.)

¹⁶⁾ *Principles of Economics*, p. 100.

And again :

It is not the marginal utility of each good to each consumer that determines its value, but the marginal utility of each good to consumers as a whole¹⁷⁾.

In judging this doctrine a distinction must be made between the idea of a bundle of utilities and that of combining the utility factors of different persons. Carver already remarked that there is nothing objectionable in an analysis which stresses different utility qualities in one single commodity ; but he does not see how it can contribute anything to the theory of value¹⁸⁾.

Indeed the whole process of thought, as soon as it is applied to the theory of value, takes place in terms of money and the existence of prices is assumed from the very outset. The comparison of the different utilities and the construction of the social utility curve are also done in monetary terms. Thus the vicious circle originates which we have described in Chapter V. It is true that Seligman tries to avoid this by assuming that the marginal utility of money is the same to different individuals. To justify this assumption, he refers to the transactions of wholesale dealers¹⁹⁾; but this affords no more than a semblance of justification, since utility is a factor which plays no role in wholesale business ; it has long since made room for the profit motive. Besides it would be hard to deny that

¹⁷⁾ *Introduction to Economics*, p. 265. Other expressions in this same spirit appear in Carver who describes diminishing utility as exerting influence "in the social sense" of "from the social point of view" (*Distribution of Wealth*, p. 17 f.). In later publications he gave to his concept of social utility a normative meaning : "Men, if left to themselves to buy and sell what they like, will frequently develop market valuations of prices which are no true indexes of social utility." (*Principles of National Economy*, p. 743.) David Kinley (*Money*, New York, 1904) speaks of "the marginal utility of goods to society" being "indicated by the price level." Edie made use of the "combination of utilities" in the first edition of his textbook (*Economics: Principles and Problems*, p. 118), but dropped it later. Mention of the bundle of utilities is made by Kiekhofer, *op. cit.*, p. 469, without, however, any applications to the theory of value.

¹⁸⁾ *Distribution of Wealth*, p. 52.

¹⁹⁾ *Principles of Economics*, p. 228 : "The great advantage of the use of money is that in ordinary transactions its marginal utility to both parties may be deemed the same." Something similar appears in the first edition of Ely's *Outlines* when the demand curve is presented as a sum of individual utility curves. The supposition subsequently added that "men have equal power over goods" causes the entire analysis to lose its realistic value (p. 132 f.). In a later edition, Ely still speaks of "the marginal utility of a commodity to the entire mass of individuals" (*Outlines*, 6th ed., p. 152).

the valuations of middlemen are influenced by differences in well-being and the individual estimates of their consumers.

If this sort of analysis is to make any contribution to the theory of value, it will have to be phrased in terms of pure utilities. When this is done, the whole idea immediately collapses since the summation of individual utilities to different persons would be required²⁰). As shown above, such a summation must be ruled out on account of the inevitable differences in the units used to measure utility. "Indirect utility" as proposed by Seligman is really value; his social utility is either objective value, and then superfluous²¹), or utility, and then not admissible²²).

Anderson as well as Davenport has attacked this notion on the ground of the well-established distinction between the demand curve and the utility curve²³). According to Anderson, the "social utility curve" is nothing but the demand curve, and thus it is improper to speak of utility. Or, if one does speak of utility, then only in an analogical sense²⁴).

²⁰) The same holds for considerations in connection with the maximum in satisfaction of wants for society. If social utility is to play a part in them, it is necessary either to give it a normative meaning or else to assume the possibility of comparing individual utility curves. The latter alternative again leads to expressing utility in money and hence to the conclusion that the maximum of social utility is attained when all incomes are equal. See, for example, Gemmill, *op. cit.*, 3d ed., p. 607; Boulding, *op. cit.*, p. 784.

²¹) Cf. Schumpeter, "On the Concept of Social Value," *Quarterly Journal of Economics*, Vol. XXIII, 1909, p. 220.

²²) Cf. Davenport, *Value and Distribution*, p. 475: "The fundamental error in all analysis of this sort... is traceable to the assumption that the marginal utility analysis for the individual man can safely be carried over to society as a whole." The absurdity of such a procedure can be seen in the following remark: "If an apple is worth twice as much as a nut, it is only because the community, after comparing and averaging individual preferences, finds that the desire unsatisfied by the lack of an apple is twice as keen as that unsatisfied by the lack of a nut." (Seligman, "Social Elements in the Theory of Value," *Quarterly Journal of Economics*, Vol. XV, 1901, p. 324.)

²³) Davenport, *Value and Distribution*, *passim*, and "A New Text; Seligman: Social Value," *Journal of Political Economy*, Vol. XIV, 1906; Anderson, *Social Value*, pp. 9, 37, 163, 182.

²⁴) Cf. also Schumpeter, "On the Concept of Social Value," p. 229 f.: "Social marginal utilities... cannot be called marginal utilities of society in the same sense as individual marginal utilities are the marginal utilities of some individual. For they are not derived from social utility curves, but are merely marginal utilities of those individuals who, in each case, happen to be 'marginal sellers' or 'marginal buyers'... They do not reflect the state of satisfaction of the community as a whole — do not indicate up to what degree society is able to satisfy its wants."

All this, however, does not mean that Anderson is satisfied with the purely relative meaning of value²⁵). He rejects Clark's analysis as individualistic, but, on the other hand, accepts his view that value is the product of the social organism and the standard of measurement of social well-being²⁶). Thus, value is essentially a social factor and cannot be derived from mere individual motives.

Among economists this view has found no favor. Value doubtlessly is a social phenomenon and a complete explanation of value must include social factors, but essentially, and in the first place, it is an exchange phenomenon which rests on individual estimates. Those estimates are influenced by social elements, and even value itself is often dominated by social circumstances; no one can deny or does deny the importance of the social order for the magnitude of any particular value²⁷). But that does not imply the rejection of the relativity of value nor of individual preference as the fundamental explanation of its existence²⁸). The social element is superfluous for the explanation of value as an exchange phenomenon. It should not become part of the argument until after the logical basis of this phenomenon has been established.

Anderson complains that an abstract ratio is meaningless and of no use to the economist²⁹). But that can be no valid reason for denying its adequateness as an explanation. It is very likely that a concept of social value varying independently of prices and built around facts of social psychology would prove to be more useful for constructive social policy. But it would be "a different entity from any that can be deduced from the idea that price is a ratio"³⁰). In this direction the ideas of John Bates Clark, Seligman, and Anderson could be applied with much more success. For welfare

²⁵) Cf. Chapter VII.

²⁶) *Social Value*, p. 54: Value is indicative of the "importance to the social organism." Exactly what this importance signifies, whether it is "utility" or something else, he does not say, just as Clark fails to define exactly what he means by social marginal utility.

²⁷) See Charles H. Cooley, "The Institutional Character of Pecuniary Valuation," *American Journal of Sociology*, Jan., 1913, p. 547; Boucke, *A Critique of Economics*, p. 64 f.

²⁸) Cf. Knight, *Risk, Uncertainty, and Profit*, p. 85, Note 1; Haney, *Value and Distribution*, p. 80; Ely, *Outlines*, 4th ed., p. 147.

²⁹) "The Concept of Value Further Considered," *Quarterly Journal of Economics*, Vol. XXIX, 1915, p. 685.

³⁰) John Maurice Clark, "A Rejoinder," *Quarterly Journal of Economics*, Vol. XXIX, 1915, p. 717. Cf. Perry, *op. cit.*, p. 466.

economics some concept of social utility seems absolutely essential. Society as such experiences wants that are different from those of its members; the utility corresponding to those wants is not a sublimation of individual utility into some sort of "social valuation" ³¹). For such purposes, we may, with Clark, look on society as an individual. Just as a bank stands in need of maintaining a certain quantity of liquid means, so society for its well-being needs to possess a sound class of farmers, to participate actively in international trade, and to be provided with a well-organized postal system. These are social wants, to which corresponds social utility. It is not necessary to ascribe any personality to society nor to suppose the existence of a "social mind" or of "social feelings," in order to be able to speak of social utility as different from individual utility ³²).

Solterer's idea of utility as a function of an end ³³) and, in general, the relative interpretation of utility lead almost automatically to this social notion. Fetter, J. M. Clark, and Bye have applied it successfully in considerations on economic policy ³⁴). The normative implications make it rather difficult to handle, but if one restricts the discussion to a selection of wants which is objectively founded and rather generally accepted, there is every reason to look forward to a fruitful development in this line.

But all this falls outside the field of the utility theory, and most authors are very apprehensive of all normative ideas.

The economist holds aloof from the implications of

³¹) As expressed by Knight (*Risk, Uncertainty, and Profit*, p. 84).

³²) Strangely enough Haney seems to disagree with this reasoning (*Value and Distribution*, p. 80).

³³) See above, Chapter I, p. 14.

³⁴) Fetter, *Economic Principles*, p. 25; "Price Economics vs. Welfare Economics," *American Economic Review*, Vol. IX, 1919, and "Value and the Larger Economics," *Journal of Political Economy*, Vol. XXXI, 1923; John Maurice Clark, *Studies in the Economics of Overhead Costs*, Chicago, 1923, and *Social Control of Business*, Chicago, 1926 (2d ed., New York, 1939); Bye, "Political Science, Political Economy, and Values: Some Criteria of Social Economy," *American Economic Review*, Vol. XXXIV, 1944, Suppl. The importance of Commons' contribution is not clear and very hard to judge. His approach is technological on the one hand and legalistic on the other. His sharp distinction between use value and scarcity value induces him to oppose production and business; the former aims at bringing forth use value, thus reducing human deficiencies (*Legal Foundations of Capitalism*, p. 205), the latter is solely interested in maintaining scarcity. He attaches much importance to the legal concept of "reasonable value." (*Institutional Economics*, Chapter X.)

his own thought and actions. He either accepts the market value of a product as meaning the social value produced, or he gives up the idea of social value and treats prices and products as purely individualistic things, measuring comparative and not absolute utilities³⁵).

³⁵) John Maurice Clark, *Preface to Social Economics*, p. 53.

APPENDIX

CONSUMER'S SURPLUS

From the previous discussion it must be evident that the question whether or not there is such a thing as consumer's surplus has some bearing on the utility doctrine in as far as it is a part of the theory of value. It may, therefore, be considered as a corollary, and a few short remarks will therefore not be out of place.

According to Knight, this question relates to "scope and method," rather than to "fact or logic":

I simply cannot see any use for the [utility] notion in understanding human conduct or explaining economic phenomena, and am convinced that the confusion of viewpoint which underlies putting it to the fore has led to serious error and the drawing of wholly irrelevant conclusions from economic reasoning. Moreover, an appeal to "unsophisticated common sense" seems to fail utterly to substantiate the existence of the phenomenon. A man might pay, say, a thousand dollars for the "first" loaf of bread (whichever one that is) rather than do without it, but it does not follow and is not true that when he gets it for a dime he gets \$ 999.90 worth of free satisfaction ¹⁾.

This example, however, seems to indicate strongly that the problem is primarily a question of fact and logic; or, rather, that it involves several questions related to fact and logic. If a real surplus is required to make the theory consistent, and if, on the other hand, the facts do not show any such surplus, the theory would have to be discarded or at least changed. Thus, the questions of scope and method depend on those of fact and logic.

Now, consumer's surplus has at least a threefold meaning; it may be

- a. the excess of price which a consumer would be willing to pay, rather than go without the thing, over that which he does pay;

¹⁾ *Risk, Uncertainty, and Profit*, p. 71 f., Note 2.

- b. the roughly triangular area lying under a demand curve and above the rectangle which represents actual money expenditure ;
- c. the area lying under a utility curve and above the rectangle which represents "effective utility," or marginal utility times the number of units consumed ²⁾).

Since only the third member of this group occupies us now, it seems advisable to note that what applies to utility surplus does not necessarily (perhaps not at all) apply to the other two members; and vice versa, some things that are characteristic of the others may not apply to our case. Thus, we must immediately reject the idea that "the doctrine of consumer's surplus necessarily runs in terms of media of payment" ³⁾, because utility and money are not commensurable, the one being absolute, the other relative. This, of course, cuts our problem off from the facts, since any actual surplus does run in terms of money. Utility surplus cannot be more real than utility itself.

It may also be noted that the term "consumer's surplus" is best suited to express this third meaning, whereas "buyer's (or seller's) surplus" ⁴⁾ and "exchange surplus" would apply to the others. But as long as the literature uses consumer's surplus indiscriminately in each of these cases, it will be better to speak of price surplus, value surplus, and utility surplus, respectively.

Now, does any utility surplus appear in the theory? As a matter of logic, the answer is affirmative. The theory operates with a utility curve for the purpose of defining the concept of marginal utility. Since the estimate of a good is made on the basis of its marginal utility, a surplus necessarily appears. But to admit this as a matter of logic does not mean that the surplus is real. With Taussig ⁵⁾ we attribute greater utility to some units, even though they are of the same economic importance, but only in the logical

²⁾ Taken from Robert L. Bishop, "Consumer's Surplus and Cardinal Utility," *Quarterly Journal of Economics*, Vol. LVII, 1943, p. 422. Several subdivisions may be found in Harry E. Miller, "Utility Curves, Total Utility, and Consumer's Surplus," *Quarterly Journal of Economics*, Vol. XLI, 1927.

³⁾ Miller, *op. cit.*, p. 303. Opposed to the measuring in money are: Davenport, *The Economics of Alfred Marshall*, p. 104, and Watkins, *op. cit.*, p. 174 f.

⁴⁾ Cf. Haney, *History of Economic Thought*, 3d ed., p. 776.

⁵⁾ *Op. cit.*, 4th ed., p. 111; Taussig, however, seems inclined to go further and ascribe reality to the surplus (Cf. *Ibid.*, p. 118).

order. The utility curve is something imaginary, invoked for the purpose of anchoring our imagination. It pictures a situation in which a man suffering from starvation looks at the first loaf of bread, then at the second, and so forth. In real life, we meet the man who has just eaten his two sandwiches, while one or two loaves are still available in his breadbox. He lives at the margin of his desires, and as soon as he gets away from that margin, be it ever so little, he hastens to return to it. The facts, therefore, as a rule show a balance of "effective utility"⁶⁾, and to appeal to the utility curve for the sake of establishing a real surplus is "to mistake *potential* utility for actual psychic income"⁷⁾.

But the theory does not require that the surplus actually exists in real life, as long as there is some factual basis for the marginal utility concept. Whichever means is chosen to establish this concept is more or less immaterial, provided a balance between utility and disutility is finally obtained. The combination of diminishing utility with increasing disutility serves this purpose, despite some doubts as to their realistic worth⁸⁾. The contribution which marginal utility makes to the theory does not depend on them, but on the need for an absolute magnitude to support the relativity of the value concept. It is value which analytically leads us to marginal utility, just as price leads us to value. Prices are seen, from them value is inferred, and from value we reason to marginal utility.

The utility curve, then, does not necessarily describe a real process, and is not meant to do so. The situation to be considered in order to arrive at the explanation of value and price is found at the margin, while "previous" utilities are not prior in time, but only in the imagination. It follows that this utility surplus is not real. Real surplus, as already noted, is expressed in terms of price and is a matter of comparative, not of absolute utility. Even in an isolated economic system where a utility calculus could find place,

⁶⁾ Cf. Thorstein Veblen, "Professor Clark's Economics," *Quarterly Journal of Economics*, Vol. XXII, 1908, p. 147.

⁷⁾ Miller, *op. cit.*, p. 299.

⁸⁾ Knight is evidently of the same opinion when he holds this to apply even to the indifference curve: "Since, as repeatedly emphasized, the curve of marginal utility relative to money, or the indifference curve in any form, cannot be drawn from demand data, all this procedure is purely formal and without practical meaning. Its only use is to clarify certain analytical concepts and to prevent making certain errors." ("Realism and Relevance in the Theory of Demand," *Journal of Political Economy*, Vol. LII, 1944, p. 315).

only utility comparisons would appear, and they would be expressed in terms of subjective value.

Of course, if a person actually finds himself in a position of extreme need, due to powers beyond his control, he may be able to secure a surplus. Someone suddenly needing seven chairs may attach a very high utility to the first one and yet buy it for a low price. Obviously there is a surplus in such a case, even though it appears only in terms of comparative utility⁹). But the utility theory considers the person who has six chairs and deliberates about acquiring an additional one, or, to put it in more general terms, it is concerned with the margin. The six previous chairs enter into the discussion only to illustrate the marginal idea. Any real surplus, then, must be ascribed to a sudden change in economic conditions. But the utility theory prescind from those changes since they can have no influence on the concept of price; hence, the theory does neither suppose the existence of a surplus nor establish it.

Real surplus is by no means equivalent to well-being. The man who lost all his possessions in a fire may be in a position to secure a considerable surplus, because of the extremely high utility of some of his first purchases, but he could hardly be said to be better off than he was previously. The rich father who buys an expensive yacht for his son may conceivably have to pay as much as he was willing to pay, thus realizing no surplus; but the poor man just able to purchase a couple of dolls for his little daughter enjoys a large surplus if he was willing to pay more for the first doll and go without the other. Everything seems to depend on the point of view which we happen to take: suppose we want five articles of the same kind, each having a different utility; then we do get a surplus if we buy all five of them, but we do not if we are lucky enough to have four and buy only one¹⁰).

In the logical order utility surplus is even more elusive and its quantitative character still more indefinite. The person who does not have to use all his resources toward the acquisition of the bare necessities of life is better off than he would be if he did have to do so. Thus the comparison between the present situation and the order of things as it could have been yields a consumer's surplus. But why not compare the present with the possibility of devoting

⁹) Cf. Watkins, who holds utility surplus to be real, but cannot prove it without making a price comparison. (*Op. cit.*, p. 9.)

¹⁰) Cf. Knight, *Risk, Uncertainty, and Profit*, p. 69 f.

even fewer resources to necessities? We might then have to speak of a "consumer's deficit." The point is that there is nothing in the nature of an explanation in the comparison; it is entirely arbitrary. We choose the one approach because it affords a better illustration, not because it explains anything.

It is especially dangerous to see in consumer's surplus an indicator of social progress, even if progress is given a colorless meaning. For the utility concept has been divested of all moral implications, while "progress" as a rule does imply some norm. The attempt to make it sound neutral easily degenerates into extreme materialism. But supposing social progress to mean only an increasing abundance of goods at the disposal of the members of society, can we correlate this improvement with any consumer's surplus? That depends on the position of the margin. Presumably the greater quantity of goods available is due to a reduction of cost, which may mean a lower marginal disutility. In that case a surplus would appear on the paper on which our utility curves are drawn, but here too it would have to be ascribed to a sudden change.

The consumer is not conscious of receiving the "free satisfaction" described by the theory of consumer's surplus. It is a real antinomy of economic psychology, but an indubitable fact, that our feelings of satisfaction depend more on *changes* in income (or particular prices) than on the absolute level — and surprise, in relation to established expectations, is also vitally important, irrespective of the accustomed standard ¹¹⁾.

We could scarcely use such a surplus as an indicator of social progress, since we have to know the fact which it is supposed to indicate beforehand. Besides, even if a surplus is secured by the consumer, it may well be neutralized by a greater disutility of the producer, since the lower cost may be due to a reduction in wages. Not everything that "diminishes the cost of production enlarges to that extent the surplus of society" ¹²⁾. The dinner which originally cost one dollar may now be supplied for fifty cents, and we may have the remaining half dollar to spend on something new, but the poor cook of the dinner may have fifty cents less to spend on things

¹¹⁾ Knight, "Realism and Relevance in the Theory of Demand," *Journal of Political Economy*, Vol. LII, 1944, p. 318.

¹²⁾ Seligman, *Principles of Economics*, p. 202.

which he needs badly ¹³). Only when the reduction of cost is caused by increased efficiency does a surplus occur which can be regarded as "social progress."

In reality all this takes on the form of "saving." Any particular desire is gratified by buying the corresponding good. The reduced cost will be the cause of a price surplus either to the seller or to the buyer. It is turned into utility only at the stage of some later trade ¹⁴).

¹³) Seligman, from whom this example is taken, rules out the possibility of such a cancellation by speaking of a "diminution of social cost" (*Ibid.*). The concept of social cost is subject to the same censures as that of social utility, but it is clear that the lowering of cost is supposed to take place without any loss to the producer.

¹⁴) Davenport, *The Economics of Alfred Marshall*, p. 106.

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JPE — Journal of Political Economy

QJE — Quarterly Journal of Economics

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STELLINGEN

I

De kernidee van de verklarende waardeleer in de economie ligt in het begrip „Subjectieve Waarde”, gezien als de quantitatieve verhouding van nutsfactoren.

II

In de studies van Irving Fisher en Ragnar Frisch over de meetbaarheid van het grensnut, heeft het begrip „Grensnut” een andere inhoud dan in de waardeleer.

III

Een sociaal nutsbegrip kan niet op mechanische wijze uit individueel nut worden afgeleid; daarom moet de poging van Seligman om waarde tot sociaal nut te herleiden, verworpen worden. Clark's idee van sociaal nut, als een organische uitdrukking van individuele nuttigheden, is te vaag en onhanteerbaar in de economie.

IV

Het onderwijs in de economie zou van het bekende naar het onbekende moeten leiden, van het concrete naar het abstracte. Uitgaande van het bestaan der prijzen en een elementaire verklaring van de prijs, komt men tot de begrippen van waarde en nut. Tegen het einde van de cursus moet dan echter een sythese volgen, die tevens tot een dieper inzicht in de prijsleer zal leiden.

V

De zorg voor de financiën van de Staat en de verantwoordelijkheid voor de waardevastheid van het geld behoren gescheiden te zijn; bij ~~internationalizatie~~ van de Circulatie Bank dient daarom aan de leiding der bank een grote mate van zelfstandigheid gegeven te worden.

VI

Om zelffinanciering tegenover de aandeelhouders ener onderneming te rechtvaardigen, behoort er een redelijke verwachting te bestaan, dat de rentabiliteit van elk deel der ingehouden winst groter zal zijn, of althans gelijk aan, die welke er elders mee kan worden verkregen.

VII

De toelating van het onbeperkt loonbeslag boven het bedrag van vier gulden, zoals deze geregeld is in art. 1638g van het Burgerlijk Wetboek, dient herzien te worden in verband met de gestegen kosten van levensonderhoud. Het ware wenselijk geen absoluut bedrag in deze nieuwe regeling vast te stellen, maar een richtlijn te geven waardoor het bedrag stijgt en daalt met de kosten van levensonderhoud.

VIII

Het principe van de draagkracht heeft in het algemeen een corrigerende werking, en vindt dus slechts toepassing op een beperkt gebied. Ten onrechte meent J. P. H. Smits dat proportionele pensioenspremiën wegens de miskennis van het draagkracht-principe onrechtvaardig zijn. („De Betekenis van de salaris- en loonsverhogingen voor de pensioenfondsen”, Econ. Stat. Berichten, 26 Febr. 1947, blz. 172.)

IX

De mening van H. J. Hofstra, dat toepassing van het draagkracht-principe bij de belastingen de onderlinge welvaartsverschillen handhaaft, en het principe daarom enkel aanvaardbaar is in een zuiver-kapitalistische en individualistische maatschappij, houdt geen rekening met de welvaartsverhoudingen die zouden ontstaan, indien bepaalde diensten, thans door de overheid gepesteed, op de vrije markt tot stand moesten komen. Zelfs moet aan dit principe een nivellerende werking worden toegekend, indien de besteding van de belastinggelden voor het merendeel geschiedt ten bate der minder bedeelde. („Socialistische Belastingpolitiek”, blz. 60 vv.)



Proefschrift:

"The Marginal utility theory in the United States of America".

door EDUARD, C., F., J., S C H R O D E R.

Stelling V. 3e. regel van boven, gelieve te lezen:

"bij nationalizatie van de circulatie Bank enz." inplaats van internationalizatie.

vR.

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